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### The Physiological Action of Urechites Suberecta.

By Isaac Ott, M. D., Ex-Fellow in Biology John Hopkins' University.

THIS plant is found in the island of Jamaica, being quite common there. It usually is discovered climbing over fences or clinging to low-growing shrubs. It has bright, yellow flowers called "Savana flowers," being easily recognized by these in the hot, dry districts. The plant is called by the natives "Nightshade," on account of the poisonous character of the dark green leaves. The taste of the leaves is intensely bitter, and very acid, producing a sensation on the tongue and lips as if they were swollen or blistered, though this is not the case. The powdering of the leaves causes violent sneezing. All the green parts of the plant are active, as are also the flowers. Wonderful stories are told of this plant that it can be administered so as to kill the victim speedily or after the lapse of months or years. It is supposed to have been the poison used by the Obeah men during slavery to rid themselves of tyrannical masters. Sloane states that no animal will meddle with this herb, and two drachms of the expressed juice killed a dog in eight minutes. It may be so ordered, he states, to kill a person in many days, months or years. He further states that two or three spoonfuls of the juice purge young persons upwards and downwards. He gives the following symptoms as occurring in a medical man to whom a negress was believed to have given portions of this plant: Violent griping, inclination to vomit, loss of appetite, small convulsions in various parts of the body, hectic fever and continued wasting of flesh. Under treatment a fatal result was averted, but considerable time passed before the convulsive symptoms left the patient.

Mr. J. J. Bowrey* (from whom the above remarks have been gleaned), makes a communication upon this plant to the Royal Society. As he was a chemist, the chemical paper is the most thorough, the physiological one dealing with the general symptoms produced, without any analysis of the chain of action. The general symptoms have been noted by him in a very thorough manner. He obtained from the leaves three substances, characterized in a high degree by active physiological qualities. These active bodies he named Urechitoxin, amorphous Urechitoxin and Urechitin. The active principle of the plant is dissolved out by water in an incomplete manner even when large quantities of water are used. Alcohol easily and completely removes the bitter substance. From the perfectly dried leaves he obtained as much as one per cent. of Urechitoxin and nearly three per cent. of mixed Urechitoxin and amorphous Urechitoxin. Urechitoxin contains no nitrogen and Bowrey gives the following for its formula: $C_{13}H_{20}O_5$. This formula is the simplest that expresses the numbers obtained by analysis, and it may well be that it does not represent the molecule, but that some much heavier formula, differing but slightly in percentage numbers, is correct. From alcohol Urechitoxin crystallizes in thin four-sided prisms, bounded by two planes: From water or weak spirit it crystallizes in sharp needles. Urechitoxin is extremely bitter and produces a tingling smarting on the lips and the tongue, the parts feeling tumefied. It causes violent sneezing and is very poisonous in the dose of one milligramme of the chemically dry substance, killing a cat in sixteen hours, when used subcutaneously. Three milligrammes of the dry substance killed a strong cat in an hour and a quarter. Rapidly heated Urechitoxin between 170° to 180° F., fuses without change, but when heated gradually to 150°—160° F., it fuses, becoming slightly colored, and permanently changed into the amorphous form. Amorphous Urechitoxin is intermediate between a resin and a gum; it has a light, dull yellow color and is nearly as poisonous as the crystalline Urechitoxin. Urechitin crystallises in four-sided prisms transparent and colorless. It resembles Urechitoxin in bitterness as well as toxic action. These various substances are glucosides. Mr. Bowrey believes that if sufficient time were devoted to experimenting on Urechites Suberecta, that it might yield as many substances as Digitalis. The poisonous properties of this plant are due to Urechitin, the Urechitoxin being a chemically changed Urechitin. On mice he observed, after a small dose of the crude plant by the mouth, a disinclination to move, which increased till motion was impossible, attempts to vomit, difficulty in breathing, convulsive gasps for air, and in ninety minutes, death. One tenth of a grain of the crude poison by the mouth, in a kitten, acted as follows: Its effects on the mouth were immediate, causing

* The Physiological Action of the Poisonous Principle of Urechites Suberecta, by John James Bowrey, F. C. S. M. J. C., Analytical Chemist to the Government of Jamaica. Proceedings of Royal Society No. 187, 1878. The Poisonous Principle of Urechites Suberecta, by John James Bowrey, Journal of Chemical Society, June, 1878.

instantaneous choking with salivation, vomiting, defecation, incoördination and drowsiness. A half cubic centimetre of the solution of the crude poison in spirit, subcutaneously, caused vomiting, incoördination, walking as if drunk, indisposition to move, urination and defecation, convulsive tremors, sleepiness, convulsions which finally caused death. On post mortem the intestines were so contracted that on a transverse section of them they appeared solid. The right side of the heart was gorged, the left side empty. Urechitoxin in one twenty-fifth of a grain of the pure hydrated article was dissolved in spirit and given by the mouth to mice, causing the same effect as the crude drug, with especial increase of pulse and of respiration. Urechitoxin on cats caused similar phenomena to those observed with the crude drug. When a small dose was given daily it caused salivation, vomiting for a short time with more or less loss of appetite, loss of weight and finally death by convulsions. The pupils after death were so dilated as to reduce the irides to mere circular lines. After death no irritability of the heart was noted upon pricking that organ. On dogs the poison acted in a like manner to that seen in other animals. The pupil at first seemed dilated and then contracted by the drug. Amorphous Urechitoxin has the same physiological action as the crystalline Urechitoxin. Urechitin acted on cats as the preceding active principles.

This is the state of knowledge of the drug as far as recorded. I have been requested to examine into its action more closely and decide in what direction its therapeutic powers lie. It has not been used heretofore as a medicine.

*General Action.*—As Mr. Bowrey has so carefully studied the general action of this drug, I append only a few experiments upon the general action.

Exp. 1. Small kitten received subcutaneously forty minims of the fluid ext. of Urechites Suberecta at 1:57 P. M. Soon afterward licks his lips with tongue in continuous manner. 1:58 P. M., vomiting; 1:59 P. M., vomiting; 2 P. M., vomiting, incoördination, weakness in the posterior extremities, sweating, salivation. 2:10 P. M., falls over struggling, urination, pupils dilated; death at 2:15 P. M. Chest immediately opened, heart arrested, pricking causes the left ventricle at its apex to beat about three times in succession.

Exp. 2. Large kitten, received subcutaneously twenty drops of fluid extract of Urechites Suberecta at 1:10 P. M. 1:12 P. M., relaxation coming on; 1:14 P. M., lapping of water; 1:15 P. M., licking of lips; 1:17 P. M., heart beat about 140 per minute; 1:19 P. M., pupils slightly dilated, salivation, vomiting; 1:20 P. M., straggling of posterior extremities in walking, vomiting, heart beats much feebler; 1:22 P. M., defecation, sweating, vomiting; 1:26 P. M., jerking inspiration, no heart beat can be felt, running backward, heart fails before breathing does, hissing inspiration, trembling convulsions, cries when pinched, struggling, death at 1:30 P. M. Chest opened immediately, right side of heart quiet, left ventricle beating 40 per minute, left auricle beating 60 per minute, ventricle beat slow and feeble, the left auricle beat quick and feeble. 1:36 P. M., all parts of heart ceased beating, except left ventricle, which quivers at its apex 16 times per minute. These experiments show that this drug causes death, mainly by an arrest of the heart.

*Action on Motor Nerves.*—Exp. 1. Frog at 8:25 A. M. received subcutaneously five minims of the fluid extract of Urechites Suberecta. Hops about. 5:20 P. M., weakened locomotion, partially relaxed, anterior extremities spread out, can only move posterior extremities, pupil dilating. 8:30 P. M., convulsions spontaneously; 8:38 P. M., chest opened, now and then a few cardiac contractions, heart arrested, breathes occasionally, upon pinching no reflex movements, convulsions of posterior extremities; 9:50 P. M., dead to all appearances, heart makes an occasional beat.

Exp. 2. Black spotted frog at 11:14 A. M. received twenty-five minims of fluid extract of Urechites Suberecta subcutaneously; 11:20 A. M., can readily be taken in the hand, pupils are dilated, on pinching leaps away; 11:23 A. M., lies on his back, convulsions with posterior extremities; 11:25 A. M., makes no response upon pinching; 11:26 A. M., convulsions; 11:42 A. M., apparently dead. Sciatic nerve laid bare and irritated. The weakest current that would irritate was at three hundred and ninety millimetres dubois inductorimi.

These experiments prove that it does not paralyze the motor nerves.

*Sensory Nerves.*—Exp. 3. Black spotted frog had his left femoral artery and vein ligated at 11:22 A. M., receiving immediately afterward twenty-five minims of the fluid extract of Urechites Suberecta. 11:25 A. M., sits quietly; 11:26 A. M., moves about, falls over on his back but recovers himself, pupil dilated; 11:27 A. M., convulsions; 11:30 A. M., pinching either posterior extremity causes no reflex action; convulsions with both posterior extremities; 12 M., dead.

Exp. 4. Black spotted frog had all the tissues of his left thigh ligated, except the sciatic nerve, at 11:57 A. M., receiving at the same time 10 drops of fluid extract of Urechites Suberecta subcutaneously. 11:59 A. M., convulsions, pinching either posterior extremity does not bring out any reflex movements; 12:15 P. M., convulsions; 12:25 P. M., dead.

Exp. 5. Frog at 1:05 P. M. had all the tissues of his left thigh ligated except the sciatic nerve, receiving at the same time ten minims of fluid extract of Urechites Suberecta. 1:15 P. M., convulsions; 1:20 P. M., on pinching either posterior extremity no reflex movements ensue; 2 P. M., dead.

These experiments prove that the shutting off of the circulation and necessarily of the drug does not prevent a complete want of sensibility in the posterior extremity of the left side. The cause of this want of sensibility must be seated iu the central nervous system and not in the peripheral end of the sensory nerves.

*Action on the Spinal Cord.* — Exp. 6. Frog at 12:50 P. M. had his medulla severed. 12:55 P. M., received subcutaneously five minims of the fluid extract of Urechites Suberecta. 1:05 P. M., reflex action good, no convulsions; 1:18 P. M., no convulsions, no reflexes can be excited; 1:25 P. M., dead.

Exp. 7. Frog at 11:43 A. M. received five minims of fluid extract of Urechites Suberecta subcu-

taneously, medulla severed. 11:46 A. M., upon pinching has active reflexes; 12 M., five minims more given subcutaneously; 12:07 P. M., no convulsions; 12:25 P. M., dead.

Exp. 8. Frog at 12:30 P. M. received five minims of the fluid extract of Urechites Suberecta. 12:32 P. M., hops about. At 12:50 P. M. medulla severed, no convulsions seen up to 1 P. M.

These experiments demonstrate that the seat of the want of sensibility is located not in the brain but in the spinal cord. As no convulsions were seen after section of medulla the conclusion is that their cause is cerebral.

*Action on the Circulation.*—In studying the action of this drug upon the circulation I used frogs, rabbits, and a so-called infusion made by adding an ounce of water to an equal quantity of the fluid extract of Urechites Suberecta, and evaporating to one ounce. With the frogs I used the fluid extract of Urechites. In the rabbits I injected the infusion through the jugular into the heart. The blood-pressure was taken by means of Ludwig's kymographion. The pulse and pressure are noted in the experiments for periods of fifteen seconds each.

Exp. 9. Frog:

| Time. | Heart beat per minute. | |
|---|---|---|
| 2:47 P. M. | 88 | |
| 2:50 " | | Five minims of fluid extract of Urechites subcutaneously. |
| 2:51 " | 76 | |
| 2:52 " | 78 | |
| 2:53 " | 66 | |
| 2:54 " | 52 | |
| 2:55 " | 48 | |
| 2:57 " | 24 | |

3:11 P. M., auricle beating 4 times per minute, ventricle arrested, electrical irritation does not start it into activity.

Exp. 10. Rabbit; jugular and carotid prepared under ether.

| Time. | Pulse. | Pressure. | |
|---|---|---|---|
| 2:05.00 P. M. | 64 | 98 | |
| 2:05.15 " | | | 20 minims of infus. Urechites. |
| 2:05.30 " | 59 | 102 | |
| 2:05.45 " | 61 | 110 | |
| 2:06.00 " | 52 | 110 | |
| 2:07.00 " | 50 | 108 | |
| 2:08.00 " | 47 | 110 | |
| 2:10.00 " | 49 | 110 | |
| 2:20.00 " | 54 | 104 | |
| 2:31.00 " | 59 | 104 | |
| 2:32.00 " | — | 94 | |

Exp. 11. Rabbit; jugular and carotid prepared, etherized, curarized, artificial respiration kept up.

| Time. | Pulse. | Pressure. | |
|---|---|---|---|
| 11:30.00 A. M. | 54 | 76 | |
| 11:30.15 " | | | Inject. of Infus. Urechites 20 minims. |
| 11:30.30 " | 52 | 78 | |
| 11:30.45 " | 56 | 84 | |
| 11:31.00 " | 52 | 84 | |
| 11:31.15 " | 50 | 84 | |
| 11:31.30 " | 52 | 82 | |
| 11:31.45 " | 52 | 78 | |
| 11:33.15 " | 52 | 88 | |

These experiments show that Urechites depresses the cardiac frequency, increases and then decreases the arterial tension. The next question to determine if the depression of frequency is due to stimulation of the cerebral origin of the inhibitory fibres running in the vagus. To remove this the vagi were divided.

Exp. 12. Rabbit; vagi divided, jugular and carotid prepared under ether.

| Time. | Pulse. | Pressure. | |
|---|---|---|---|
| 2:50.00 P. M. | 52 | 40 | |
| | | | Injection of 20 minims of fluid ext. of Urechites Sub. |
| 2:50.15 " | 49 | 32 | |
| 2:50.30 " | 55 | 32 | |
| 2:50.45 " | 44 | 62 | |
| 2:51.00 " | 49 | 80 | |
| 2:51.15 " | 49 | 80 | |
| 2:51.30 " | 52 | 80 | |
| 2:52.30 " | 45 | 80 | |
| 2:57.30 " | 44 | 74 | |
| 3:03.00 " | 46 | 70 | |

This experiment demonstrates that the depression still takes place after the cerebral inhibition is removed, proving that the drug does not depress the pulse by any irritation of the central origin of the inhibitory fibres. To remove the peripheral inhibition of the heart atropin was used to paralyze the cardio-inhibitory ganglia.

Exp. 13. Rabbit; curarized, atropinized, vagi cut, carotid and jugular prepared.

| Time. | Pulse. | Pressure. | |
|---|---|---|---|
| 3:00.00 P. M. | 50 | 102 | |
| | | | 40 minims of Infus. Urechites. |
| 3:00.15 " | 48 | 94 | |
| 3:00.30 " | 53 | 96 | |
| 3:00.45 " | 46 | 108 | |
| 3:01.00 " | 18 | 104 | |
| 3:01.15 " | 40 | 98 | |
| 3:01.30 " | 34 | 104 | |
| 3:01.45 " | 26 | 104 | |
| 3:02.00 " | 27 | 88 | |
| 3:02.15 " | 25 | 84 | |
| 3:02.30 " | 25 | 72 | |

Still the frequency of the pulse falls, so that Urechites does not reduce cardiac frequency by any peripheral irritation of the cardio-inhibitory apparatus. As this drug reduces the irritability of the striated muscle it is probable that it partly reduces the frequency of the heart by an action on cardiac muscle.

That this drug does not paralyze the pneumogastric is shown by the following experiment:

Exp. 14. Rabbit; jugular prepared; right vagus prepared; 11:40 A. M., injection of 20 minims of infusion of Urechites Suberecta; 12 M., vagus irritated, heart arrested.

Exp. 15. Rabbit; cord cut between atlas and occiput, the vagi depressores and sympathetics in the neck divided, carotid and jugular prepared.

| Time. | Pulse. | Pressure. | |
|---|---|---|---|
| 2:31 00 P. M. | 48 | 36 | |
| | | | Inject. of 20 minims Infus Urechites Suberecta. |
| 2:31.15 " | 46 | 40 | |
| 2:31.30 " | 50 | 40 | |
| 2:31.45 " | 47 | 40 | |
| 2:32.00 " | 46 | 40 | |
| 2:32.15 " | 45 | 34 | |
| 2:32.30 " | 40 | 30 | |
| 2:33 30 " | 40 | 20 | |
| 2:34.30 " | 36 | 10 | |
| 2:35.30 " | 35 | 14 | |
| 2:36.30 " | 32 | 14 | |
| 2:37.30 " | 33 | 14 | |
| 2:38.00 " | 32 | 10 | |
| 2:39.00 " | 35 | 14 | |

The drug increases the blood-pressure by a peripheral action on the vaso-motor system and

not by an irritation of the monarchical vaso-motor centre. As this poison produces a cramp-like contracted state of the intestinal tube it is probable that the elevation of arterial tension may in part be caused by it. Further experiment would be necessary to decide if the use of tension was due to cramp of the intestinal canal or to a stimulation of the peripheral vaso-motor system. That the two drugs, Urechites and Aconite, may be compared, I have placed the action on the same organ opposite each other. As to action of Aconitia I shall mainly rely on the researches of Dr. James M. Murray.*

| URECHITIN. | ACONITIA. |
|---|---|
| It contains no nitrogen. | It contains nitrogen. |
| Powerful toxicant. | Powerful toxicant. |
| It kills mainly through cardiac arrest. | It kills mainly through respiratory apparatus. |
| It does not paralyze the motor nerves. | It does not paralyze n otor nerves. |
| It does not paralyze the sensory nerves,but does the spinal sensory ganglia. | It paralyses first the sensory nerve ends, then the nerve trunk and finally the spinal sensory ganglia. |
| It reduces the pulse by an action on the heart, probably on its muscular structure. | It reduces the pulse by an action on the intra-cardiac ganglis. |
| It increases arterial tension and then depresses it, the rise is due either to an action on the peripheral vaso-motor system or to a cramp of the intestinal canal. | It increases and then decreases arterial tension by an action on the cardiac ganglia. |
| The pneumogastrics are not paralyzed. | The pneumogastrics are paralyzed by small doses. |
| It causes no delirium cordis. | It causes delirium cordis. |
| It is a salivator. | It is a salivator. |
| It increases the secretion of the skin. | It increases the secretion of the skin. |

The question now arises in what direction will its therapeutic effects lie? Being in so great a degree a cardiac agent, it would be advisable to try it here, as it acts upon the heart in a somewhat different manner compared with Aconitia, to produce results similar to those caused by the latter agent. A trial of it in the diseases where Aconite has been found useful will show whether it possesses virtues superior or inferior to it. As this drug is a highly dangerous agent, I would suggest, in cases of poisoning the use of Digitalis. On man† it seems to have a similar action to that observed on lower animals. A man, weighing 215 pounds, took at 9:50 A. M. five drops of the fluid extract of Urechites Suberecta; pulse 74; 10 A. M., some constriction about the fauces, pulse 72; 10:10 A. M., sense of constriction of fauces slightly increased, with sensation of swelling. 10:15 A. M., pulse 70, five drops more of the extract taken, pulse 70.

10:30 A. M., pulse 66, feeling of swelling and constriction in the throat continues; gave ten drops more. 10:50 A. M., pulse 64, slight drowsiness, constriction of fauces not so marked. Nausea, burning sensation in tongue and lips, profuse secretion of saliva. 11 A. M., pulse 62, other symptoms unchanged; gave twenty drops more.

11:10 A. M., vomiting, causing burning sensation in the œsophagus; 11:30 A. M., pulse 60, nausea and depression; 11:50 A. M., pulse 60, depression with cold perspiration. The depressed feeling with low rate of pulse continued until 2 P. M., at which time the effects had passed off with the exception of a diarrhœa without griping, which set in a few hours later. As is seen, Urechites in man as in lower animals depresses the pulse, causes salivation, perspiration, vomiting and diarrhœa.

* The Physiological Action of Napellina and Aconitia, by James M. Murray, A. M., M. D., Assistant Surgeon U. S. N.

† Editorial in Therapeutic Gazette, Sept., 1880.

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## Grindelia Robusta.

By J. H. Egan, M. D., Pulaski, Tenn.

GRINDELIA ROBUSTA is a perennial herbaceous plant growing on the western coast of the United States. It varies in height from a few inches to two or three feet. It resembles the common sunflower and in many parts of California is called the wild sunflower. The plant is the part used in medicine. The best form in which to administer it, is in the shape of a fluid extract. There are many false varieties of the Grindelia in the market and the only way in which the physician can depend upon procuring the genuine plant is by purchasing from a responsible house. I have prescribed it on several occasions and been disappointed in the results by not having the proper plant.

Like many other new remedies Grindelia Robusta was received with suspicion and distrust and it is solely owing to its merited value that it has outlived its period of trial and stands to-day accepted as one of our best friends in diseases of the respiratory organs. It is a specific in the treatment of poisoning by rhus. It is demulcent, a stimulating expectorant and also an antispasmodic. For vesicated surfaces it forms an excellent dressing but will never excel the saturated solution of bicarbonate of soda. When used for this purpose the green herb is preferable. It is to be bruised and applied as a poultice, and will relieve the the pain, thereby soothing the sufferer and inducing sleep. In disease of the heart it acts by its stimulating property but is far inferior to Cactus and Cereus Bonplandii. The medicinal properties lie to a great extent in the balsamic resin which is contained to the largest extent in the flower heads, and to a minor degree in the shrub. This resin contains an oil which is the medicinal ingredient. The old dried plant is inert and unless the fluid extract be prepared from the green plant it is useless. On this account it is that there are so many worthless preparations on the market. Dr. Bartholow says "the therapeutic application of Grindelia might be deduced from a study of its physiological action. The combination of an oleoresin with a narcotic principle is one especially advantageous in the treatment of the respiratory neuroses."

There are only two diseases of the respiratory organs in which I have personal experience of the beneficial action of Grindelia Robusta. These are bronchitis and asthma,and in both of these affections I have combined it with Yerba Santa. This is now a popular remedy and bears the name of Yerba Santa cough mixture. It is used largely by the people without prescription from any physician which is always a tribute to the value of any

medicament. People only purchase that which their own personal experience informs them relieves their troubles. For asthma, I find in the drug stores, Grindelia compound put up as a specific for asthma. On inquiry I find that the effects vary with the preparations, that of some giving relief while the make of others is unproductive of any benefit. This can only be attributed either to inert old plants or a spurious variety of the Grindelia.

I shall give one or two illustrative cases of asthma which have been cured by the continued use of Grindelia Robusta, Yerba Santa and Lobelia. The prescription taken from my case book is as follows:

℞ Fluid Ext. Grindelia Robusta,
Fluid Ext. Yerba Santa, ää ʒ ij.
Fluid Ext. Lobelia, ʒ ii.
Fluid Ext. Stramonium, ʒ iss.

M. Sig. A teaspoonful in simple elixir, to be taken every hour during the paroxysm and three or four times daily to ward it off.

This I have used in every case that presented itself to me for treatment, and I term it "Asthmatic Mixture." H. B., æt. 65, lawyer by profession has suffered from asthmatic attacks for the past thirty years, especially during damp weather. Patient had tried all asthmatic remedies but without avail. Wheezed during the day. I prescribed Asthmatic Mixture which gave him relief and by the constant use of same he enjoyed tolerable health. He never entirely recovered from the wheezing but it became so slight as to produce but slight inconveniences. So soon as patient neglects for any length of time to take his mixture the paroxysms return; a few doses afford relief.

Miss A. J., æt. 35, has been afflicted with asthma from girlhood. There is no period of the year when she has relief, summer or winter, wet or dry. Has a paroxysm every week. Her brother is a physician and has tried all the advertised nostrums besides exhausting his own stock of remedies. Proposed moving to Colorado for the purpose of trying the effect of a change of climate. Her brother had the kindness to consult me and I recommended Grindelia Robusta and Yerba Santa of each equal parts. This produced marked benefit. I then prescribed Asthmatic Mixture and as an adjuvant pearls of Nitrite of Amyl. The continued exhibition gave so much relief that the trip to Colorado was abandoned. After three months continued treatment paroxysms were so much reduced in frequency that she flattered herself that she would gain an entire immunity from the disease.

A. J., æt. 70, professor of painting in a large educational institute. Afflicted with asthma from the time he left Athens, Georgia, a period of ten years. His sufferings were so great that when I saw him he was using Dr. French's suspensory brace for the purpose of getting a slight modicum of relief; was unable to lie down either night or day as the recumbent posture was sure to bring on a paroxysm. Had used every variety of medicine and smoked a preparation of saltpetre and Stramonium leaves. I was called to see him in a paroxysm and administered chloroform which afforded relief so long as he was under its influence, but as soon as that was over the attack was as bad as ever. I then tried hydriodic ether as I was afraid to administer more chloroform, but this gave respite only for a short time. At same time I administered Asthmatic Mixture every fifteen minutes until eight doses were taken, and then every hour thereafter. Towards morning he felt better and to guard against another attack I directed him to continue the mixture during the day and provided him with pearls of Nitrite of Amyl for his night attack. The succeeding paroxysm was not so violent and as he continued the mixture the paroxysms became less frequent and milder. It was six months before he was altogether free from the disease, and this only by the continued use of the Asthmatic Mixture.

In these and other cases of asthma of which I have notes, I found a bronchitis incidental to the disease. I believe that in all long continued cases of asthma this is and must be the inevitable result. I prefer treating the bronchitis by means of the spray and in these cases used the same preparation by a Codman and Shurtleff steam atomizer. I find that if a medicament works well per orem, I get better results in less doses by means of a spray producer. There is no danger to life to be apprehended from asthma itself but the continuance of the disease gives rise to secondary diseases such as bronchitis and pneumonia which are inimical to life, while in some cases we have cessation of the asthma during certain periods of the year, depending upon the state of the atmosphere; in other cases we find it after a time in dependent of such changes. Many persons retain good health and freedom from attacks by moving from a moist to a dry atmosphere, and *vice versa*. Others by moving from the country to the town during the summer while the hay pollen is being wafted through the air, gain immunity from their trouble; yet still there are a certain number in whom the disease has become habitual, who derive no benefit whatever from change of climate and it is precisely in the latter cases where the Grindelia Robusta becomes such a boon. In practice the writer has experimented with many medicaments and has found that what will relieve one patient to-day will be totally useless at the next attack. Emetics have been tried and in a certain number of cases have been found curative. The smoking of tobacco and of Stramonium leaves and saltpetre has benefited other cases for one or two attacks and then been found inert; and so it is with the long category of asthmatic specifics. Grindelia Robusta is the only drug I have ever prescribed which has been found curative in my hands of every case in which it has been exhibited. The grand desideratum which it supplies is that it not only relieves the asthmatic trouble but also the lesions of the respiratory organs which have been superinduced by the original disease.

Bronchitis is usually very amenable to treatment but there are some cases which have become chronic which are difficult to relieve. A. L., conveyancer by occupation had been troubled with chronic bronchitis for many years which unfitted him for business; came South to the Sea Islands off the coast of South Carolina, where I met him, to try the effects of change of air and climate. His health improved but there was no change in the expectoration which was purulent and excessive.

The fits of coughing were painful to witness and weakening to the patient. It was useless to think of any routine treatment. He had had the best skill of Philadelphia, expectorants, anodynes and given both per orem and by the atomizer but without any benefit. I asked him if he had tried Grindelia Robusta to which he replied in the negative. It was suggested to try it. He informed me that he was willing to try anything as his general health was improved, yet on his return to Philadelphia he would be as bad as ever. A bottle of fluid extract Grindelia Robusta and Yerba Santa of the manufacture of Parke, Davis & Co., was then procured at Charleston and exhibited in minute doses every half hour. After the first week there was a visible improvement and in the fall he left for home without a vestige of his enemy bronchitis. I have heard from him very frequently and am told by him that he ever keeps his mixture on hand and on taking cold at once begins its exhibition, which cuts it short.

I will narrate one more case which is well known among the theatrical profession. J. M., actor by profession, affected with bronchitis. Had been unable to appear on the boards for two years. Wasted to a skeleton. Was treated by a distinguished specialist in St. Louis for over a year without advantage. Smoked a mixture of Cubebs, Mullein and Witch Hazel which gave some relief. Expectoration, profuse and purulent; dyspnœa excessive. On my introduction I found him smoking to relieve his difficulty in breathing. Gave him a sniff of Nitrite of Amyl which gave prompt relief to the dyspnœa. Recommended him to try a mixture of equal parts of Grindelia Robusta and Yerba Santa, to be taken in minute doses every half hour in Rock and Rye. After the failure of the specialist in St. Louis, than whom there are few more noted, I had but little idea of his deriving benefit from any treatment I could devise. After three weeks patient began to improve. The fits of dyspnœa were relieved by the inhalation of Hydriodic ether. In four months patient was able to resume his place on the theatrical boards and I understand is now stage manager. This was the worst case of bronchitis I have ever seen. Many declared it consumption but examination by percussion and auscultation clearly decided that there was no deposit of tubercle or cavities existing. If Grindelia Robusta be so prompt in the relief of cases far above ordinary severity, it will be admitted that it must be still more efficacious is those of a milder type.

In asthma and bronchitis our great effort is to cure as rapidly as possible, as the loss of sleep incident to these diseases soon produces emaciation and general debility. In all cases where I have used the Grindelia, it has been treasured as a priceless boon on account of producing a refreshing sleep which had not been enjoyed for some time.

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[Written for The Therapeutic Gazette.]

## Cereus Grandiflorus in Epilepsy.

By William Jones, M. D., New York.

ON the 7th of October, 1877, I was called to see a little girl æt. 6 years, who had always enjoyed almost perfect health until within the last year previous to my being called, when she was taken sick with convulsions. I was informed that they were very severe, and in fact she has not been free of them for any considerable length of time since.

She had been treated by almost every doctor in her vicinity, and had taken everything recommended by the old women, and wise ones of the neighborhood, without any apparent benefit. She also suffered from irregular action of the heart. The urine on standing, deposited more or less of uric acid crystals. She had fits anywhere and at any time at her play, while in bed or even at the table. While eating, her head would drop upon her plate; in a moment she would resume eating, as if nothing had happened. From one to six paroxysms were the number she had in a day. When unconscious enough to fall, she often struck her head against objects that were within reach, and it made no difference whether she had been standing or sitting. The physical system had not seemingly suffered. But there was a disposition to be irritable and the mind had become sensibly impaired. Her moral faculties, and in fact the better qualities of heart and head had given away to the baser instincts of human nature, until she had become exceedingly ugly, vulgar and profane.

My treatment was suggested by Dr. R. E. Kunzé, of New York, he having given me a half a pound of the Tincture Cereus Grandiflorus to experiment with on any case of epilepsy that might present.

I commenced with six drops of the tincture, given in a little water every three hours. After she had taken the medicine about one month, her convulsions were less frequent, and the action of the heart much improved. Even the kidneys seemed to perform their functions better than previously, and I felt encouraged at the change in her condition. But this seeming improvement was of short duration. I then increased the dose to eight and afterwards to ten drops every three hours. Larger doses seemed to produce gastric irritation and mental confusion, and I was compelled to fall back upon the former dose of six drops.

I then gave it with Potassic Bromide and with Chloral Hydrate, and other sedatives and nervines. But it was of no use I could not see that my little patient was permanently benefited, nor is she at the present time. There is no doubt in my mind but that in this case the disease was purely idiopathic and connected with some central lesion of a very grave character. Remedies calculated to relieve cases, which may be merely functional and symptomatic of irritation in other parts, were of very little use in this child.

Case 2. July 28th, 1879, I was called to attend Mr. J. D., æt. 36, a farmer, who had been afflicted with epileptic convulsions for more than a year. On my arrival at the house I found him in a fit, but the paroxysm was already passing off. He was still comatose and the wife very much alarmed and anxious to have something done to relieve him. She said: "We have been doctoring for a whole year, and my husband is worse than when we commenced." I asked, how much

worse? She replied that his fits had been increasing in frequency, and they were harder and continued longer than they did a year ago; that he appeared to act and feel worse too. Whereas a year ago he had the fits only once in one or two weeks, he now had them two or three times in a week and sometimes two or three in a day. "And," she continued, "I have had three doctors before you, and I am getting discouraged. Now, doctor, can you do something for him that will benefit him? If not, I hope you will tell me, that I may prepare for the worst."

On inquiry I learned that my patient's bowels were very much constipated, and that he was suffering from almost constant pain in his chest and head. He was then taking Bromide of Potassium, and the only change I made at that time in the treatment was, the addition of Cascara Sagrada to the former. In a few days his bowels became regular, and he was relieved of some of his pains. I then prescribed Tinct. Cereus Grandiflorus, in ten drop doses every three hours, to be taken in water. After taking the medicine for a week, he said to me, "Doctor, do you know this medicine is going to help me?" I asked, what makes you think so? His reply was, "it relieves that heavy feeling in my chest and head; it is the first medicine that has given me any relief from those confused feelings, and also makes me feel more quiet." From this time on the patient has been gradually improving. The convulsions now occur only in two or three months, and they are less severe. He also recovers from the stupor sooner than he previously did. As a general thing, headache, lassitude and stupor follow in the wake of epileptic convulsions, and no remedy heretofore known has so effectually overcome these sequelæ as Cereus Grandiflorus. For the last three weeks I have been giving him a saturated tincture of Scutellaria Lateriflora in alternation with the Cereus Grandiflorus. I give fifteen drops each, alternately every three hours, and the effect so far is quite satisfactory. It appears to me that the Cereus controls the nervous action of the heart, and overcomes the tendency to congestion and apoplexy, while the Scutellaria (Skullcap) controls the more general nervous disturbances of the system. I may be wrong in my theory, but I cannot be deceived in the marked improvement of my patint. Nor am I mistaken that the improvement is more marked since I made the combination.

Is it not possible that the Cereus Grandiflorus is deficient in some properties that is requisite to complete a cure in epilepsy, and may we not find that property in the Scutellaria? My patient certainly is very much improved since he has taken both drugs.

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[Written for the Therapeutic Gazette.]

## Medical Jottings.—Aconite.—Nitro-Glycerine. — Pulsatilla in Suppressed Menstruation.—Chian Turpentine.—Homatropia.—Urtica Dioca.

From Our London Correspondent.

LONDON is still very empty, and per contra all the watering places are full to overflowing. The only event that has excited anything like general interest in London during the last week or two has been the great cricket match between England and Australia. Visitors flocked to see it not only in their thousands but in their tens of thousands. Dr. W. G. Grace played with all that dash and verve which have made his name so popular wherever the game is known. The presence of three members of the medical profession in the English eleven is a noteworthy fact, and one of which we have every reason to be proud.

I was at Malvern the other day, and a very beautiful place it is too. People still go there for the waters and for the sake of its hydropathic establishments, but those who know it best say that it has fallen off wonderfully since Dr. Gully left. Gully may perhaps have been not quite strictly professional in his conduct—that is not for us to say, but at all events he had acquired in a prominent degree the art of making money. It is said that he had under him at his establishment at one time Thos. Carlyle, Alfred Tennyson, Douglas Jerrold, Alfred Wills, the right-hand man of Charles Dickens; Charles Reade, the Novelist and Dramatist; Eliza Cook; the late Bishop Wilberforce, the Earl of Carnarvon; Dr. Duff, the Indian Missionary; Blumenthal, the composer; and a host of others. Bulwer Lytton speaking of his treatment says: "Amongst all my most brilliant recollections, I can recall no period of enjoyment at once more hilarious and serene than the hours spent in the lonely Hills of Malvern—none in which nature was so thoroughly possessed and appreciated."

I was looking through Phillips' "Vegetable Kingdom" the other day and find that he recommends Aconite in many of the congestive and inflammatory diseases of women. He finds it especially valuable when there has been a sudden and abrupt suppression of the catamenia through a chill or from some similar cause. In these cases, he says, there is no remedy which acts so promptly as aconite in removing the discomfort produced, and in quickly causing the flow to reappear, especially if the patient be kept warm, so as to favor any tendency that may be to perspiration. He finds that a drop of the tincture given every hour in a little water will nearly always restore the discharge in from four to eight hours if it be given within a few hours of the occurrence of the suspension. I have heard many doctors say that they always give nitroglycerine in these cases, and that it acts like a charm. Formerly we had no convenient mode in which to administer this valuable remedy, but since the introduction of the pilules it will probably come into more general use. For such a case as I have described I should give one of the gr. 1-100 pilules every hour or every alternate hour until flow was re-established.

Pulsatilla is another good remedy to use in affections of the uterus. In functional amenorrhœa, or if the catamenia be delayed or suppressed by chill or fright, this drug is of the greatest value in establishing the flow at the proper time and in its natural quantity. It is also useful in dysmenorrhœa when the discharge is scanty, or if profuse blackish and clotted. Tincture of Pulsatilla taken in five drop doses three or four times a day is an excellent remedy for some forms of leucorrhœa, and its efficacy may be increased by using night

and morning an injection made by adding a teaspoonful of the tincture to a pint of cold or tepid water.

The "Vegetable Kingdom" contains many hints for the use of new remedies, and is full of "tips" of all kinds, rivaling in this respect Ringer's well-known work.

There is still a good deal of discussion about the value of Chian Turpentine in cancer, and the general opinion seems to be that if you can only get the real article the results are most satisfactory. I hear of enormous prices being paid for small samples of turpentine that have been kept long in stock. I am told, too, that since the publication of his paper Professor Clay's consulting rooms have been crowded with patients anxious to place themselves under his care. It is only fair to say that he seems to have effected a cure after others have failed. It is generally rumored here that all the genuine Chian Turpentine has been bought up and sent to America. We ought not to grumble for America has of late sent us many new and valuable remedies, which will undoubtedly in time replace many of the comparatively useless preparations of our pharmacopœia.

Ergot is universally acknowledged to be one of our best remedies for diabetes insipidus, and it seems likely to come into use in the treatment of diabetes mellitus. The great thing is to push it. Most people are afraid of it and don't give enough. From a drachm to a drachm and a half of the liquid extract may be given every four hours and continued for days or for weeks without fear of gangrene or any untoward symptoms making its appearance. Cases of diabetes mellitus are reported where a good course of ergot has removed the sugar from the urine, and restored the quantity to the normal.

I think I mentioned in one of my former letters that Homatropia was being largely used both in England in Germany in the place of Atropia to dilate the pupil. It is now suggested as a remedy for the night sweating of phthisis and other wasting diseases, although it is said not to be equal to Dover's powder, Picrotoxine and some other remedies. It appears that it may be given hypodermically or by mouth in any dose up to one-sixth of a grain, but that when more than this is administered symptoms are produced similar to those of atropia poisoning, though in a less marked degree.

I hear that Jamaica Dogwood is being largely used, and that excellent results are being obtained from it in simple insomnia, and in bad cases of neuralgia and other painful diseases. I see, too, that Urtica has recently been used with considerable success in the treatment of nettle-rash. From some observations of my own I feel sure that it is a valuable remedy. Years ago it was used for gravel, jaundice and dropsy. It has also been employed in obstinate cases of hæmoptysis, and has succeeded when numerous hæmostatics of recognized activity had previously failed. Of course in testing it experimentally one should use it alone and not in connection with other remedies. As accessory measures in the treatment of nettle-rash I have sometimes used bran baths, and baths of common washing soda. In obstinate cases the local application of a carbolic acid lotion (1 in 1000) or of common Friar's Balsam may be used.

[Written for the Therapeutic Gazette.]

## Yerba Reuma, Berberis Aquifolium and Penthorum Sedoides, in treatment of Nasal Catarrh and Follicular Laryngitis, with Cases.

By J. M. Blackerby, M. D., Milford, Ky.

In the treatment of nasal catarrh my attention has, in the two years past been called to the use of some of the new remedies, and notably to Yerba Reuma, Berberis Aquifolium and Penthorum Sedoides. In the administration of these remedies, I use the Berberis exclusively as an alterative tonic, either when the case is simple catarrh, or when it is complicated with trouble in the throat. In many cases of laryngeal complication I find a decided benefit from the use of Penthorum, especially, after hypersecretion takes place from the enlarged mucous follicles of the fauces. In the local treatment of catarrh I seldom find it necessary to resort to any other agent than Yerba Reuma, and have myself been surprised to see the success attending the use of the medicine locally; but though I have succeeded in making cures by its local use alone, I prefer the internal use of Berberis with it, especially in those cases presenting a more marked, strumous diathesis.

We are frequently called upon to explain to a patient, the nature and cause of certain symptoms arising from some local trouble in the region of the nares, and across the root of the nose; and upon inquiry and examination we generally find more or less complication, and to tell our patient, simply, that it is a case of catarrh, does not satisfy. Almost every patient in this day understands that to mean some disease of the nares and that region of the air passages, but cannot account for the continued and persistent soreness in fauces and throat. Explain this to them, how the one may produce the other, or at least become the exciting cause, and as a rule they are more desirous to have treatment and more persevering in the use of remedies. My experience has been, that many cases have failed of a cure because the treatment adopted was not made with a view to the complication; that is, each disease was not treated specifically at the same time, and the patient, becoming tired of the protracted course of treatment, wearied of the delay and finally quit the use of remedies.

The skilful physician will make a thorough and critical examination of each case presented; and ascertain if there be any throat trouble, the nature and extent of the same, as well as its duration; and having ascertained its presence, try to impress on the mind of his patient the importance and the difficulty in the treatment of the catarrhal affection. In this way we can, not infrequently, get the confidence of our patients, and by judicious and skilful general and local treatment secure success, where, otherwise, failure would be the result. I do not wish it to be understood, that in the treatment of these complications I use no other remedies than those named in the beginning of this article. Of course, I, as any other physician, adapt the means to the end in seeking to subdue the trouble I find in the throat, and while I am a firm believer in the superior alterative properties of Berberis and Penthorum, I nevertheless believe it all important in rational treatment of the local trouble of the throat,

to use such local remedies as have heretofore proven serviceable in like affections; and, as I use Yerba Reuma locally in the treatment of nasal catarrh, perhaps it will not be amiss to report a case or two that recently came under my care for treatment; the patients, thinking they were troubled only with simple nasal catarrh, and for which they had each used remedies prescribed by other physicians without the least benefit.

Case 1. J. H., æt. 24, of strumous diathesis, a teacher by profession, came to my office May 15th of the current year, to consult me in regard to her disease. On examination I diagnosed chronic catarrh of seven years standing, complicated with follicular disease of the air passages, embracing the entire fauces, epiglottis and larynx as far down as the vocal cords. This case, also, presented symptoms indicating an involvment of the bronchi in the inflammatory process by slight pain in the clavicular regions and along the superior portion of the sternum, and the sibilant breathing in that locality. On irrigating the nasal passages freely I succeeded in dislodging and removing quite a quantity of incrusted matter, muco-pus and dark grumous blood. These irrigations I made with the curved syringe postero anteriorly, using as a menstruum a weak solution of lukewarm salt water, and continued until the passage was freely open and the water colorless. I then prescribed:

℞ Ext. Yerbæ Reumæ fluidi ʒjss.
Aquæ ʒjv.

M. One syringeful thrown postero anteriorly into each nare and retained four or five minutes.

Also directed

℞ Ext. Yerbæ Reumæ fluidi ʒij.
Aquæ ʒjv.

M. A teaspoonful to be injected into each nostril, morning, noon and evening every day for a week; and to take the following mixture internally:

℞ Ext. Berberis Aquifol. fluidi ʒij.
Glycerinæ ʒij.
Aquæ ʒij.

M. A teaspoonful three times daily, before meals.

I also prescribed

℞ Ether. Sulph. ʒj.
Olei Tiglii ʒj.

M., and apply over the throat and upper part of the breast to produce pustulation: and dismissed my patient for a week, it not being convenient for her to visit my office oftener than once a week.

This treatment was continued until the tenth of August, at which time no trace of catarrh was discoverable.

During the progress of the treatment for the catarrhal symptoms, I adopted the following plan of treatment for the laryngeal trouble; premising, that I offer nothing new in the local treatment, having followed closely in the footsteps of Prof. Horace Green, of N. Y. But I do claim that the general treatment I adopted in this and other cases has given better results than that recommended by Prof. Green. In this case I freely applied the nitrate of silver solution to all the diseased surface as it was discernible; and some minutes after, introduced the probang, freely charged with the solution, momentarily into the glottis. For this purpose I generally use the solution as recommended by Prof. Green of the strength of gr. ix. to the ounce of water, though I frequently use a much stronger solution, 80 gr. to the ounce for cauterizing the fauces. The first few treatments generally produce considerable dyspnœa, but after a few applications that trouble seems to be overcome and the patient escapes the strangulation, especially if she is careful to fill the lungs with air before the application is made. I continued this treatment at each weekly visit of the patient until the tenth of August, at which time the case was discharged cured of both the catarrh and the complication. The local inflammation about the fauces entirely disappeared, the hoarseness subsided and the pains were relieved, the appetite good and the patient gaining flesh. How much of the cure to attribute to the agency of the Berberis and Penthorum may admit of controversy, but I am so well satisfied in my own mind, not only from the result in this case, but in many others, that I met with such success as I have not been able to obtain from any other agents that I have used, especially with the iodides and mercurials. I hope those having diseases of this character to treat, will give these drugs a fair trial both locally and constitutionally, and report their success.

The 2d Case. Miss M. D., æt. 28. Called at my office May 16th, the current year, to consult me in regard to a case of catarrh of twelve years standing. On examination I found the symptoms and condition of the parts involved very similar to those in the case just described; though presenting to my view a severer type of both disease and the complication, inasmuch as, the parts diseased embraced a greater extent of tissue, and the disease in the throat was of a more highly inflammatory character; the mucous follicles of the posterior walls larger and of greater number, and the soft palate (velum) and glands thickly studded with hard and sharply pointed granulations, very highly inflamed, presenting a deep cherry red color. Other conditions indicating pathological change of the parts involved were present, but it is unnecessary to characterize them, as those named are sufficient for the purpose I have in view; only to say that the inflammation extended deep into bronchi, and the edges of the epiglottis being thickened and studded with small ulcers of a red and angry character. The treatment in this case was in every respect similar to that made use of in Case 1st. except, that in cauterizing the velum and fauces I used a solution of nitrate silver 80 gr. to the ounce of water, and used this three or four times before I attempted to enter the glottis. In this case the hoarseness was neither so great nor so persistent as in the first case, though it presented to first view a much more aggravated form. In the treatment of the throat complication, as in idiopathic diseases of the same organs, I deem the external pustulation of the throat and upper part of the chest, "especially in the cervical region," by the croton oil of great importance, believing I have succeeded in establishing speedier cures than when I have treated cases without this adjunct. This case progressed equally well with case first, and was discharged at the same time. I am satisfied, how-

ever, if I could have had my patients where I could have seen and treated them twice or thrice weekly, the cure would have been effected in a much shorter time; but living 8 or 9 miles away and a large stream intervening, I could not prevail on them to visit me oftener than once a week. I saw the father of one of the young ladies to-day, and he assured me she seems entirely cured, and expressed great gratification at the result, as he thought her in great danger from the fact that the family have a hereditary tendency to tubercular disease of the lungs.

[Written for the Therapeutic Gazette.]

## Liquidambar Styraciflua—Sweet Gum.

By Thomas F. Wood, M. D., Wilmington, N. C.
Editor N. C. Medical Journal.

THE natural history and botanical description of even a medical plant has few attractions for the busy physician. Liquidambar has botanical relations with witch-hazel and old-man's beard, although it stands alone in its peculiar medical characters, being the sole representative of its genus in America, being one of the few balsam-bearing trees. Its range is from Connecticut to Indiana, and southward to Mexico, but is very abundant in the Southern states.

The sweet-gum tree attracted attention from the earliest travelers in the New World—Quaint Old Lawson * who traveled through North Carolina in 1700 says of it: "The sweet-gum tree, so-called because of the fragrant gum it yields in the spring time upon incision of the bark or wood. It cures the herpes and inflammations, being applied to the morphew and tetters. 'Tis an extraordinary balsam, and of great value to those who know how to use it."

Like many another indigenous product which has taken its permanent place as a remedy, the attention of the profession was first called to Liquidambar by the country people who long employed it as domestic remedy. The parts usually preferred are the tender leaf, buds and twigs. Of these a decoction is made, and milk and sugar are added, so that it makes a pleasant drink for the thirsty patient suffering with dysentery or diarrhœa. Such a preparation is not objected to by physicians when other remedies are being used, and many families in the country are accustomed to rely upon it, in the summer complaint of children. It has the advantage of being astringent and at the same time aromatic, especially when properly prepared from the fresh leaf-buds. It, therefore, seldom disagrees with the stomach. It was from such beginnings that Liquidambar attracted the attention of physicians.

I am not aware that an analysis of the entire plant had been made. In a fluid extract prepared by Messrs. Parke, Davis & Co., each fluid drachm contains four and one-half grains of the gum, dried by 100° C. I am confident that the medicinal virtues of the plant do not reside in the gum alone, although the gum has not been administered alone in my practice.

In the Medical and Surgical History of the War, etc., Part II, Medical Volume p. 47, will be found an account by Acting Assistant Surgeon J. V. C. Smith. He reports for the year 1863 the decoction of sweet gum has been used throughout the entire season with marked success. He says that nearly all the fatal cases of diarrhœa might apparently have terminated more satisfactorily if the patients had been sent more seasonably to the hospital. He enumerates thiry-three † cases of diarrhœa in which the average duration of the disease was about twelve days.

However defective such a statistical record may be it accords with the unrecorded experience of many physicians who have used this plant for years, and who have knowledge of its use as a domestic remedy.

I have used the fluid extract recently in cases of simple diarrhœa with marked good results, but in chronic diarrhœa for which opium or the opiates had been habitually given, the results were not so good, as in all such cases the opium habit must first be overcome. I have seen good results in such cases notwithstanding the opinon of the patient to the contrary.

As compared with well known astringents—catechu, kino, krameria, gallic acid, logwood, tannic acid,—it has the advantage of being in a greater number of cases acceptable to the stomach, and for the reason of its balsamic ingredient.

I believe that some one has shown that the gum has no benzoic acid, but that its aroma is due to cinnamic acid; whether I am right in my recollection or not, I believe that a fair trial of Liquidambar will show that I have not over estimated its value.

# Reports on New Remedies.

[Written for the Therapeutic Gazette.]

## Coca Erythroxylon in Exhaustion.

By James W. Hole, M. D., Salem, Ohio.

IN illustration of the remarkable stimulant and tonic properties of this new drug—new to the profession of this country, though long and favorably known in its habitat—I submit the following brief report:

A lady, 40 years of age, had at the time I was consulted been confined to her bed for over a year from exhaustion following an acute attack, the nature of which I could not definitely ascertain. In spite of every effort made by the physician who attended her originally, and of others who were afterwards consulted, she would not rally, and her appetite having failed her, she became so reduced that she was little more than an animated skeleton. I was sent for as a sort of last resort, the family even apologizing for calling me in to treat what they supposed was a dying woman. The lady's mother, a facetious old lady, somewhat naively illustrated my connection with the case by an anecdote of an old doctor, Barnabus

* The history of Carolina, containing the natural history of that country. London, 1714.

† Five cases are excluded in the average, four of which were fatal.

Dunster by name, who expressed his dissent on being called in late in a case by saying, "You never send for me until it gets to be Barney and the devil for it." Although I had no great fears of any serious interference on the part of his much abused majesty, I still had serious apprehensions for the recovery of the patient. The bowels being very inactive I ordered a pill, a favorite combination of mine, composed of macrotin, irisin, euonymin, jalapin and oil of cloves. In order to secure proper muscular exercise I ordered massage and friction of the surface with a stimulating liniment, twice a day. I then prescribed Coca Erythroxylon. Improvement followed this line of treatment almost immediately, the appetite improving and the patient becoming improved in spirits, arousing from her lethargic condition and displaying some energy. She is now out of bed and promises fair to be soon restored to her former condition of health.

Doubtless the correction of the bowels and the passive exercise had much to do with the recovery, but the effects following the administration of the Coca were so immediate and pronounced as to lead me and the patient herself to regard that drug as the chief factor in the cure of the case.

[Written for The Therapeutic Gazette.]

## Jamaica Dogwood

By Thomas F. Wood, M. D., Wilmington, N. C.

I HAVE been using Jamaica Dogwood and its effects have far surpassed my expectations. I had a friend who was suffering from an old wound of the femur, and who after a long course of unabated pain had found his only comfort in hypodermic doses of morphia. As time wore on he found that the opium habit was about to overcome him. Aroused by his own personal conviction of this fact, he discarded opiates in every shape, and of course went through the agony usual to so abrupt an abstraction of opium. I suggested the new remedy, Jamaica Dogwood, with some misgiving because of the unenthusiastic statment of its virtues, but so marked was its effect in procuring sleep that the specimen was returned to my office with the enquiry if I did not suspect that laudanum entered into its composition.

A few nights after this a meeting of our County Medical Association was held, and a bottle of the fluid extract was passed around. Without exception in ten members all pronounced it laudanum.

Bearing this suspicion in mind, the next day I made the following tests: Took one drachm of laudanum and one drachm of extract Jamaica Dogwood, added water and then added a solution of sugar of lead. It is needless to follow the steps of a familiar process. I got in the case of the opium meconic acid, and none from the Dogwood.

I am now using the Dogwood with increased confidence, notwithstanding the fact that my chemistry was not that of the skilled workman.

[Written for the Therapeutic Gazette.]

## Jamaica Dogwood in Cholera Morbus.

By E. S. Richardson, M. D., Reed City, Mich.

THE following brief report of results from the use of Jamaica Dogwood in a case of cholera morbus may not be without interest:

This morning Mr. B., a gunsmith on his way from his residence to his shop, was taken suddenly with griping pains in the abdomen. He hastened to my office, was unable to get farther than the doorway when he fell prostrated upon the steps. Before I had time to enquire into the cause emesis began, which with the other symptoms caused me to diagnose cholera morbus. Morphine had always been my preference in this disease as the most prompt and efficient remedy, but as I had none at hand I administered a drachm of fluid extract of Jamaica Dogwood from a sample vial which had been presented me. I gave this dose immediately after the first emesis. The relief was prompt and decided, the only remnant of the trouble being some slight abdominal uneasiness. In twenty minutes I gave another fluid drachm. There was now no more symptoms of the disease, and in half an hour after the second dose he left the office feeling well.

The recovery was attended by none of the disagreeable after effects attending the use of morphine. This fact, together with the prompt relief given and the fact that the drug was given without any of the hesitation which one feels in giving decided doses of morphia, lest untoward results occur, has made me regard Jamaica Dogwood as a decidedly valuable addition to our list of remedies.

[Written for the Therapeutic Gazette.]

## Manaca.

By J. H. Taylor, M. D. Lapeer, Mich.

ON the 26th day of August I was called to see Mrs. A. I found her confined to her bed suffering a great deal of pain in her joints, which was aggravated on the least motion, making it almost impossible for her to turn in the bed. The joints were swollen and very stiff although there was little or no fever. I learned that she had been suffering from rheumatism for about seven months, it commencing in the acute form. She had been treated by a homœopath for about four months and by a regular physician for the last three months. She had taken all the usual rheumatic remedies including Salicylic Acid, quite thoroughly. I placed her on the Manacá fluid extract, five drops four times a day, gradually increasing the dose up to fifteen drops four times a day. Improvement was rapid from the first. I called on the 2d of September and found her up and able to move around the house. Since that time she has continued to improve and has visited my office twice a week, and is feeling quite well most of the time, except she suffers some pain occasionally.

## Abstracts and Translations.

[Translated for the Therapeutic Gazette.]

### On Quebracho Bark.

Botanic-Pharmacognostic Essay by Dr. Adolph Hansen, Assistant at the Botanic Institute of Erlangen.

[Illustrated by three plates containing twenty-five lithographic figures.]

IN THREE PARTS. PART II.

This is confirmed by an examination of the section (Plate 2, fig. 6), which represents about a third of the width of the brown fibrous layer, being, in fact, the inner portion, which was originally in direct contact with the wood. The components of the layer are brown-walled parenchymatous and sclerenchymatous cells lying partly isolated, but again occurring in groups. The parenchymatous cells vary in size; their walls are thickened unevenly and irregularly, and are of a cinnamon-brown color* by which the dark appearance of the layers is caused; the cells are rich in starch and a light-brown granular substance. The entire structure appears to be distorted and disorderly; a close examination, however, will enable us to discover in this confused mass, the medullary rays radiating through it. At many points, especially in the medullary rays, we can discover blackish, thread-like formations consisting of the mycelium of a fungus which has penetrated into the dry bark. The groups of sclerenchymatous cells display the same components as those in the corky layer, their form and appearance being alike in both cases (fig. 6, sk.,) differing only from the latter by containing a dark yellow substance occurring in the form of drops, filling up both the cavity and the pore-canals of the cells. It is difficult to determine anything with regard to the chemical nature of this substance; it is insoluble in water, alcohol and ether; treated with potash lye, it dissolves; but it is not possible to remove it entirely from the cells; solution of ferrous salts gives no precipitate, an evidence that it is not an astringent substance. Figure 7 represents a group of sclerenchymatous cells, surrounded by brown-walled parenchyma which shows that the group is not of homogeneous structure, but is composed of two different elements discoverable at the first glance. In this group, there are several cells which are conspicuous by their peculiarity of appearance, readily distinguishable from the preponderating mass. The larger number of these sclerenchymatous cells have a flattened form, resulting from their mutual pressure. These cells are nearly isodiametric, their walls much thickened, and the layers therein easily distinguishable. The cavity has nearly disappeared, and numerous pore-canals reach from it into the thickened wall. These cells are, therefore, so-called "short sclerenchyma," (stone-cells). The second class of cells above referred to, differs in one particular from the remainder, in that they have a nearly circular form. The cavity of these cells has almost entirely disappeared, having contracted to a point in their centre; the thickened wall of these cells is penetrated by very fine pore-canals, frequently indistinguishable. A further inspection shows that these cells occur not only in the groups of sclerenchyma but also appear isolated in large numbers in the parenchyma.

A remarkable feature of these cells is that their periphery is surrounded by a wreath or ring of angular bodies, which refract light in a different manner from the cell-wall. In order to arrive at a thorough knowledge of the structure of these cells they should be viewed longitudinally; there is no difficulty in preparing a specimen for this purpose; an examination thereof discloses the fact that they are fibres of sclerenchyma which have a considerable length and are spindle-shaped at the ends. (Plate 2, fig. 8). The number of these isolated fibres increases in proportion as we near the inner part of the bark, the splintery structure of this inner portion depending upon the frequency of their occurrence. On scraping the inner portion of the bark with a knife, a microscopic examination shows that we have separated such fibres almost altogether. As these fibres are so characteristic of Quebracho bark, of such value for its identification and of such peculiar anatomical structure, we will consider them at greater length. Naturally, we can obtain from a transverse section of the bark quite a number of sclerenchyma fibres which usually separate spontaneously from the surrounding tissue. Such an isolated section of the fibre always displays the surrounding circle of angular bodies, from which we may conclude that this substance is firmly attached to the fibre. It soon appears that these bodies are crystals and the question arises in what manner they are connected with the fibre itself; this is shown quite plainly by a longitudinal view of the fibre, (fig. 8,) in which we discover that the fibre is completely surrounded by an envelope of this substance, and is actually enclosed in a sheath composed of a multitude of small cells, each containing a crystal. It is sometimes possible to remove this sheath with a knife, which then reveals the spindle-shaped fibre surrounded by its envelope. (Fig. 9). That the crystals are not merely adherent to the exterior of the fibre, but are really enclosed by cell-walls can be demonstrated satisfactorily by coloring one of these fibres with aniline or iodine, and removing the superfluous coloring matter by washing well with water. By this means the cell-wall alone absorbs the dye, the crystals remaining colorless, which can then be clearly distinguished from the former, an illustration of this being found in fig. 10. The crystals are composed of oxalate of lime, for on treatment of the fibre with hydrochloric acid the crystals may be dissolved, leaving the cells empty. If the fibre be now colored with iodine, or aniline, it can at once be discovered that it is surrounded by minute cells. (Fig. 11). That these surrounding cells do not belong to the membrane of the fibre itself, will appear from a consideration of their origin and development given further on. Similar formations, though not always of such complicated structure as the foregoing, exist in the bark of many plants;

* As has already been remarked some specimens of the inner layer have a much lighter color, (Fig. 3 *f*), which is owing to the fact that in such pieces the cell wall of the parenchyma is uncolored. While there is no difference in structure between the lighter and darker shades, it seems that the brown coloration of the walls occurs only in aged trees, and is, sometimes, entirely wanting.

PLATE II.

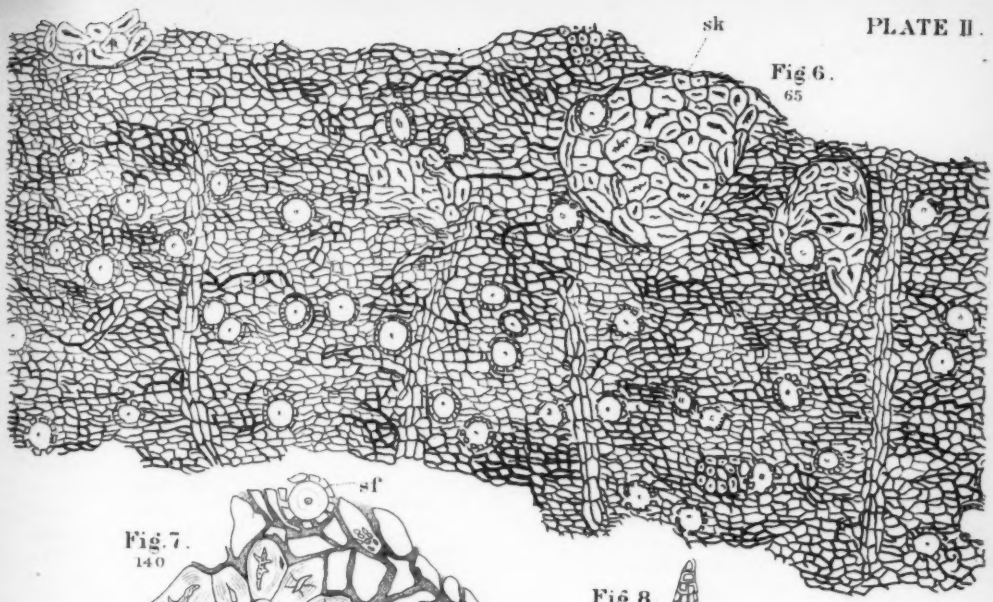


Fig 6.
65

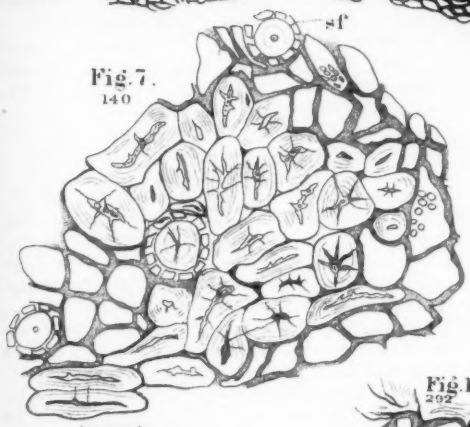


Fig. 7.
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Fig. 8.
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Fig. 9.
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Fig. 10.
292

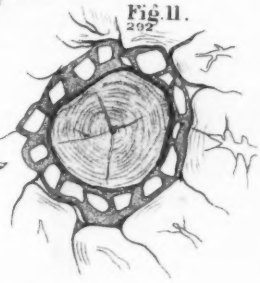


Fig. 11.
292

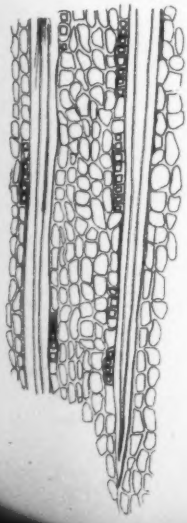

Fig. 12.
110

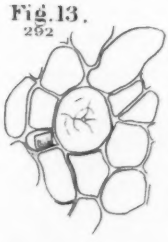

Fig. 13.
292

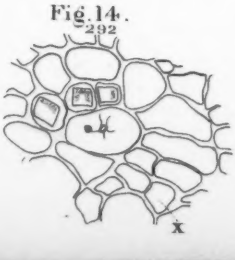


Fig. 14.
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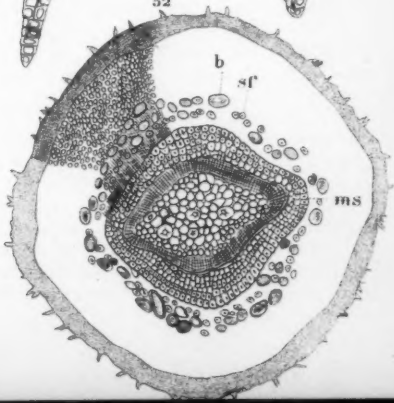


Fig. 15.
32

they have been designated by the name "crystal-sheath;" an especial reference to their occurrence can be found in the article by Sanio in the Monthly Reports of the Royal Academy of Sciences, Berlin, 1857, p. 252, and also in De Bary's Anatomy, pages 104, 502, 544.

3. HISTORY OF GROWTH AND DEVELOPMENT.

Living specimens of the Aspidosperma Quebracho were not accessible, to my regret, and for this reason I had to be satisfied with the material obtained from the Herbarium, but could at least obtain therefrom some knowledge of the development of the bark and its elements; to these observations are appended also a few anatomical details of the pith, which is remarkable for the peculiarity of its structural development.

The young shoots form wood early, so that one of a year's growth, at the end of the period of its vegetation, already possesses a firm woody ring, though the shoot may be but a millimetre in thickness, even the formation of the periderm having begun, as is shown by the appearance of the first corky layer. That the structural arrangement does not, as a whole, differ from the normal type of dicotyledons is shown by a transverse section of an internode in its earliest development. (Plate 2, fig. 15). Commencing at the centre, we find that from the pith there leads to the wood an irregular tissue of narrow cells, and in the wood may be discovered young wood cells partly with thickened walls, and also young vessels. The bast tissue (figs. 16 and 17) of the vascular bundle is rather limited in quantity, its elements being principally cambiform cells of triangular or multangular section. As is well known, the bast of the Apocyneæ is noted for its irregularly grouped elements and very narrow, hardly discernible, sieve-tubes. The bark displays in its earliest stages a complex structure.

For the following compare fig, 15 The epidermis, whose cells possess strongly cuticularized outer walls and develope short, hairy formations, is exposed to the risk of dying off by the occurrence of cork cambium in the adjacent cellular tissue of the hypodermic layer. The hypoderma is composed of globular cells with uniformly thickened walls.

Centripetally the cells of the bark become thinner. The inner zone of the bark surrounding the bast is noteworthy; in this zone are found two elements differing from the fundamental tissue; one is the primary sclerenchyma fibre known by its small cavity arising from secondary deposits (sf.) and the second, cells mostly oval on their transverse section and differing by their greater diameter from the remaining bark cells; they surround the bast irregularly in large numbers, or are themselves lying therein.

These cells possess characteristic features both of form and contents; they are entirely filled with an amorphous substance, which in thick layers appears gray, and whose reactions indicate a fatty or waxy substance. It is colored intensely by tincture of alkanet, but potassa produces no effect, while ether dissolves it slowly. These secretory vessels are not of a globular form as might be inferred from the transverse section, (figs. 15 and 17 b.), inasmuch as a longitudinal section shows their form to be that of a duct of considerable length. Two of these superincumbent tubes are separated by a horizontal wall, making it seem as if they had originated from the division of a single cell. It was, however, impossible for me to determine the exact method of their formation, as those found in the youngest samples of material accessible to me had already arrived at maturity.

In older shoots the sclerosis of the bark cells extends over a larger area. In front of the bast of each vascular bundle there appears a group of sclerenchymatous cells, the formation of sclerenchymatous fibres occurring here only at isolated intervals, and it is only in old bark that the formation of sclerenchyma fibres takes place to such an extent that they outnumber the cells of the sclerenchyma. In front of the bast where we now find the sclerenchyma groups (Fig. 16) there were, originally, the oil ducts; these, through the growth of the bark, have been removed in an outward direction and separated without increasing their number; on the contrary in the older bark, they disappear entirely. Even the primary sclerenchyma fibres which originally lay between the secretory ducts (Fig. 15, sf.) are now exterior to the sclerenchymatous zone bordering on the bast; at the same time, however, the formation of sclerenchyma has begun from the outer portion of the bark; the bark parenchyma lying directly under the first cork layer, being transformed into sclerenchyma, becoming a mantle of several layers of cells.

In the parenchyma which is enclosed by these two zones or layers of sclerenchyma, we find the commencement of the formation of the crystalline envelopes which we have previously found to surround the sclerenchymatous fibres. These envelopes are formed only after the sclerenchyma fibres have attained complete maturity, and are derived from the surrounding parenchyma cells, the process of their formation being rather slow. A transverse section through the young bark shows that in no case is a young fibre surrounded by this ring of cells containing crystals, but that the fibre is enclosed entirely by parenchyma cells. In the bark of older twigs, we often find at first a few, sometimes more of these crystal-bearing cells contiguous to the periphery of the fibre (Plate 2, figs. 13 and 14) from which we can already draw a conclusion as to the gradual formation of this envelope. A longitudinal section of the bark showing the corresponding stages of development gives us a better insight into this formation. (Plate 2, fig. 12.)

The growth of this crystalline envelope begins usually at different points of the exterior of the fibre in a longitudinal direction, each parenchyma cell in immediate contact with the fibre furnishing by its own division the cells which contain the crystals. In most cases these parenchyma cells divide into two daughter-cells by the formation of a wall perpendicular to the longitudinal axis of the fibre. In this mode of division both of the daughter-cells become chambers containing crystals. As figure 14 x shows, the division can also occur by the wall formation taking place parallel to the longitudinal axis of the fibre. In such a case only one of the daughter-cells formed is in immediate contact with the fibre, and only this

one becomes a crystal-bearing cell. This mode of division most naturally occurs when the original parenchyma cells present their ends and not their sides to the fibre. It occasionally happens that a longer parenchyma cell may form successively more than two or three crystal-chambers. From fig. 12, we can see that the cells of the fundamental tissue next to the fibre are not drawn into service successively for the formation of these chambers, the series of these crystal-bearing cells being often interrupted by unchanged parenchyma cells which, at a later period annex themselves to the others.

In this manner the formation of the sheath proceeds to its completion; at what period of the growth of the bark this stage is reached, I am unable to say, as I was not in possession of specimens intermediate between one to three year old shoots and very old bark. It is very probable that the division of the cell occurs before the formation of the crystal, for we often find walls in the cells which are becoming part of this sheath and which yet contain no crystals, (Plate 2, fig. 14 x). A circumstance which militates against the view that the crystals appear before the division of the cell, is found in the fact that the crystals never occur in parenchyma cells possessing their original forms and dimensions; that the crystals themselves always fill the divided cells, and are of similar form and size is also an evidence of their secondary formation.

It is naturally difficult to determine whether this large quantity of oxalate of lime has been separated by the fibre itself during its development, and only deposited in the surrounding cells. We may, however, suspect the existence of some such definite relation in their occurrence inasmuch as we already know of analogous cases where deposition of oxalate of lime crystals takes place in the walls of the fibre itself, as in the spicular cells of Welwitschia mirabilis, leaving no room for doubt that they are separated by the fibre itself. Another query suggests itself to us in considering this structure, whether the deposition of oxalate of lime is not connected with the process of sclerosis; at any rate, it is worthy of remark that not only surrounding the sclerenchyma fibre itself, but particularly in the young bark in the immediate vicinity of the groups of short sclerenchyma, quantities of oxalate of lime are also deposited in the parenchyma cells, without in this instance taking the form of tubes.

### 4. FALSE QUEBRACHO BARKS.

In closing the examination of Quebracho bark, it may be well to devote a few words to the false varieties of bark. So far there have appeared in commerce only two false barks, which differ, however, from the genuine Quebracho so decidedly, that it is hardly possible that they will in future be mistaken therefor. One of these barks, a sample of which was obtained from Brueckner & Lampe, Leipzig, and of which considerable quantities were sold, proved to be the Cortex Copalchi, long known though little used as a drug. The plant from which it is obtained is the Croton Pseudochina Schlechtendal, one of the Euphorbiaceæ; its home is Mexico and it has been used as a febrifuge, not only in its native country, but other parts of America; the shipment from which the sample was obtained came from Brazil. Cortex Copalchi occurs in commerce in rather long quilled pieces; externally the bark is covered with a dirty white corky layer, more or less fissured, which can be rubbed off in powder. The thickness of the pieces is usually from one to five millimetres according to the age of the twigs from which they are obtained. A transverse section of Copalchi bark, examined either with or without a lens, shows a yellowish-white exterior and a dark-brown fibrous layer, which has been formed from the bast of the trunk. The bast fibres are small, converging to a point at their outer end, somewhat bent, and the bark presents in consequence the appearance of flame-like rays of dark-brown color. For the identification of Copalchi bark and its distinction from Quebracho, this superficial examination is sufficient, rendering a microscopic examination unnecessary; it has in addition an aromatic smell and taste, while Quebracho bark does not possess these properties. A second false variety was obtained from Messrs. Grundherr & Hertel, of Nürnberg; it was a hard bark of uniform dark-brown color, covered with a whitish to grayish-brown corky layer and much furrowed on the interior surface. While I have not yet succeeded in determining the origin of the last variety, it is sufficient to state that it bears no resemblance to the Quebracho bark.

EXPLANATION OF PLATE II.

Fig. 6. Transverse section of inner bark.
Fig. 7. Group of stone-cells in the inner layer.
Fig. 8. Fibre of Sclerenchyma, enclosed in the crystal sheath.
Fig. 9. Longitudinal section of a fibre.
Fig. 10. Transverse section through the fibre and its sheath.
Fig. 11. The same after-treatment with hydrochloric acid and removal of the crystals, showing empty cells.
Fig. 12. Longitudinal section through the bark of a twig of Aspidosperma Quebracho. Young sclerenchyma-fibre with crystal-sheath in process of formation.
Fig. 13-14. Transverse section through a young sclerenchyma fibre and its neighboring cells showing the gradual formation of the sheath.
Fig. 15. Transverse section through a one-year-old twig of Aspidosperma Quebracho. b. secretory ducts, sf. primary sclerenchyma fibres, m. s., medullary sheath.
The value below the number of each figure shows the microscopic enlargement.

[To be continued.]

## Correspondence.

### Replies.

Verbesina Virginica, L.

C. R. KING, M. D., Lampasas, Texas.—The specimens came to hand in much better condition than those received last month, enabling us to identify the species with certainty. It is Verbesina Virginica L., sometimes called Crownbeard, a plant growing chiefly in the Southern States, though it has been reported as far North as Southern Illinois and Pennsylvania. Belonging to the natural order compositæ, it shares the general characters of the family, but has numerous peculiarities which perhaps entitle it to a special description. The erect, herbaceous stem is from three to six feet high, pubescent, more or less furrowed, narrowly or interruptedly winged by the decurrent bases of the leaves. The leaves are al-

ternate, ovate-lanceolate, irregularly serrate or sinnuate-toothed, scabrous on the upper surface and downy pubescent on the lower. Heads small in corymbose clusters; involucre composed of linear bracts of unequal length; ray-flowers about three, white, pistillate but apparently seldom fertile; disk-flowers tubular, white with a five-lobed border; achenia flattened, winged, the wing ciliate-fringed, terminating above in two slender, setaceous awns which are barbed upwards; chaff concave, hairy. The numerous fibrous roots have an agreeable, peculiar, aromatic odor and an aromatic, resinous and pungent taste.

We are not aware that a chemical analysis of the root has been made, but from its very marked sensible properties and from the favorable notice of Dr. King, believe it to be worthy of more extended investigation.

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Rumex Crispus.

JOSEPH BURKE, Saginaw City, Mich.—The sample presented consists of the fruiting panicles and the root of Rumex Crispus, L., the common curled Dock or Yellow Dock which has been so extensively naturalized in this country and is now found in cultivated and waste grounds almost every where.

As is well known, the root has been very extensively employed in domestic practice and by many is held in great esteem as an alterative and blood purifier. Its chemical composition having been found to be essentially the same as that of rhubarb, the proportions only of the constituents varying in the two drugs there can be no doubt of the medicinal value of the Rumex, though here as in so many other cases, there is still room for thorough investigation of its precise therapeutic action.

Several other species of Rumex are of common occurrence in the United States, and their roots which are collected indiscriminately with those of the Yellow Dock have been supposed to possess essentially the same properties. A description of the single species recognized by the dispensatories, R. crispus L., will make the identification of this species easy. Leaves lanceolate, the lower ones truncate or slightly cordate at the base, their margins wavy and curled. Stem two, three or more feet in height, smooth, distinctly channelled or grooved, hollow. Flowers numerous in an elongate panicle, which consists of several wand-like, crowded and leafless racemes; pedicles very slender, one to several times the length of the heart-shaped valves which enclose the fruit; calyx of six divisions, the three outer remaining small and inconspicuous in fruit, while the three inner become enlarged, veining, somewhat tinged with purple, and bear a conspicuous tubercle or grain on their back; by separating these valves, as they are termed the fruit is exposed; it consists of a smooth tringular achenium which bears at its apex three short styles, each terminating in a conspicuous fringed stigma.

The root, which is the part employed in medicine is perennial, usually slender and tapering, from a few inches to a foot in length, decidedly yellow within, when dry winkled longitudinally, with slight odor and a distinctly bitter and somewhat astringent taste.

Rumex obtusifolius L., may be mistaken for the true species, especially as hybrid forms occur. Rumex verticullatus L., another common species, is also closely allied to the preceding. It is a rather taller plant and occurs chiefly in swamps. The best rule is to study attentively the characters of the genuine species and reject such specimens as do not agree with the description given.

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Aspidium Acrostichoides, Swartz.

Dr. A. W. SQUIRE, Whitehall, Mich.—The specimens submitted consist of the fronds and a portion of the stipe of Aspidium Acrostichoides, Swartz, or Christmas-Fern, a rather striking and interesting species of fern with evergreen fronds, which, from its use for decorative purposes at Christmas time, has received its common name.

The species is indigenous to Eastern North America and has not been found elsewhere. In several of the States of this region it is very abundant and it is by no means rare in the woods and along the shady hillsides of Michigan. It is too vigorous, hardy and independent to be called a "house plant," though it is well entitled to a place in any collection of ferns and is specially recommended for cultivation by its adapting itself to vicissitudes of climate or unfavorable soil.

The Christmas-fern belongs to the same genus as the well known Male-fern, Aspidium Filix Mas, and from its greater abundance in most of the Northern States and the readiness with which it may be recognized and gathered, it becomes a question of practical interest to ascertain whether it shares to any available extent in the medicinal properties of that drug. To any who may be disposed to investigate the subject the following abridged description from Eaton's "Ferns of North America," will be found useful.

The root stocks creep just beneath the soil for a distance of several inches, and are thickly covered by the still attached bases of old stalks, from among which copious branching fibrous roots are emitted, and fastens the plant to the ground. The fronds rise in a graceful crown from the end of the root stock, most of them appearing in early spring, and remaining fresh and green until the new growth appears the next year. The stalks (stipes) are from three to four, or even from eight to ten inches long, and in the living plant are nearly terete, being slightly flattened on the anterior or upper side. They are fullgreen in color, becoming brownish at the very base. Usually they are chaffy, with large and small light-brown scales and chaffy hairs intermixed. This chaffiness often follows the rachis nearly to the apex of the frond, but at other times it falls away long before the fronds begin to wither leaving them almost perfectly smooth. A section of the stalk shows four or five roundish fibro-vascular bundles, arranged in a semi-circle, the two anterior bundles much larger than the others. The dried stalk is often deeply furrowed, owing to the contraction of the tissues between the two larger bundles.

The fronds in mature plants are from one to two feet long, and rarely as much as five inches broad. The pinnæ of such fronds number from twenty-four to thirty on each side, the upper ones becoming smaller and smaller, and the frond ending in a short incised or serrated point. The texture of the pinnæ is sub-coriaceous; the upper surface deep-green, smooth and shining in the living plant, but

duller in dried specimens. The under surface is somewhat paler and scantily scurfy-puberulent or minutely chaffy. The largest pinnæ are from two to nearly three inches long, and about half an inch wide in the middle. In shape they are oblong or lanceolate-oblong from a very unequal base, being suddenly narrowed to the short stalk on the lower side of the base, but on the upper side furnished with well developed triangular-ovate bristle-tipped auricle. The margin is normally finely serrulate with bristle tipped incurved teeth. The veins of the sterile frond are free. Each vein is pinnately, rather than dichotomously divided into about four veinlets, of which the lowest one is on the upper side of the vein. The veinlets are not conspicuous until the frond is dried, and are then most easily seen by holding up the specimen against the light.

In the fertile fronds, which are often rather taller, or at least more erect, than the sterile, the upper third part of the frond is suddenly contracted, so that the lowest fertile pinna is not more than two-thirds as long or wide as the sterile pinna next below it. The sori are borne near the midvein, either on the lowest veinlet of each group, or on the two or three lower veinlets. The indusium is orbicular and peltately attached at the center; its margin is obscurely crenulate, but devoid of glands. The spores are ovoid or bean-shaped, and have a conspicuous irregular wing-like border.

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Baptisia Tinctoria—Collinsonia Canadensis—Eupatorium Ageratoides, etc.

G. A. CABLE, M. D., Browhelm, Ohio.—1. Baptisia tinctoria R. Br. or Wild Indigo, a perennial plant belonging to the natural order Leguminosæ and indigenous to Canada and the United States, growing abundantly in dry and sandy soils. The stem is smooth and branching, two feet or more in height, leaves palmately trifoliate, with cuneate-obovate leaflets, which like other parts of the plant blacken in drying, flowers yellow in loose terminal racemes, fruit an oblong, stalked and pointed pod. The root, which is the part recommended for use, and of which a good specimen is enclosed by our correspondent consists usually of several cylindrical branches united above into a knotty head, with a brownish bark and a yellowish white wood. It has a slight peculiar odor and a rather nauseous, acrid taste.

Like numerous other members of this family of plants it has been used for dyeing purposes, being employed sometimes as a substitute for indigo. It has also rather active properties as an emetic and cathartic and has been employed at an external application to ulcers, etc.

2. Collinsonia Canadensis L., or Horse-balm also called Rich-weed and Stone-root. The plant belongs to the natural order Labiatæ and shares in a marked degree the aromatic properties of this family. It grows in rich ground from the Carolinas Northward and is not rare in this latitude. A complete description will be found in any of our manuals of botany. Its chief value is due to its stimulant properties which depend upon the considerable amount of volatile oil which it contains. "It is considered tonic, astringent, diaphoretic, and diuretic."

3. Eupatorium ageratoides L. or White Snakeroot. This plant belongs to the natural order compositæ and to the same genus as eupatorium perfoliatum L., the well known Thoroughwort or Bonset. It does not appear however to possess in any well marked degree the tonic properties of the latter plant, though perhaps it deserves more extended trial than it has yet received at the hands practitioners.

4. A species of Aster, probably A. patens, Ait., but for the certain determination of species belonging this genus root, leaves are essential and we cannot undertake their determination without these. None of the asters are believed to have any medicinal value. The species are very numerous and are mostly indigenous, while a few are cultivated for ornamental purposes.

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Helianthemum Canadense, Michx.

DR. J. MCMORRIS, Belle Plain, Ia.—A doubtful specimen of Helianthemum Canadense Michx., commonly called Rock-rose or Frost-weed, a common and variable plant occurring in dry soil throughout the Northern States. It belongs to the natural order Cistaceæ, or Rock-rose family, several representatives of which are distinguished by their peculiarity of producing flowers of two sorts, viz.: 1. Large or primary flowers, borne early in the season, with conspicuous petals, numerous stamens, and large many-seeded pods; 2. Very small secondary flowers, produced later in the season, their petals minute or altogether wanting, stamens few, and pods very small and containing but few seeds. The specimen at hand has only these secondary flowers, with the small few-seeded pods already described. It differs, moreover, in a marked degree from typical forms of the species, particularly in its more erect and wand-like habit, more crowded branches, smaller, more numerous and more rigid leaves, and its tendency to multiply the clusters of secondary flowers.

It appears to be the variety which Linnæus was led to classify under another genus, Lechea, from its very wide variation from the typical species with which he was familiar, and the variable forms associated with it have been a source of more or less difficulty to practical botanists ever since. Under the article Helianthemum in the dispensatories will be found all the reliable information that can now be given respecting this plant.

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Penthorum Sedoides.

J. Y KZARTEE, M. D., Ceresco, Mich.—A very good specimen of Penthorum sedoides, L., or Ditch Stone-crop, one of the new remedies of Parke, Davis & Co. Aside from its medicinal value the plant is of exceptional interest on account of the perfect symmetry of its flowers, the plan of five prevailing through all its parts and very clearly seen in the specimen which shows the five carpels "forming a five-angled, five-horned, and five-celled pod." It is common in wet places and may readily be recognized by the characters mentioned. Other plants of the same family exhibit the same symmetry of parts, but are usually very thick-leaved, succulent herbs, differing in this respect from Penthorum Sedoides which has lanceolate, acute leaves, scarcely at all thickened, and stems that are even a little inclined to become woody. Oc-

casionally a flower of this species shows a departure from the normal plant and has its parts in sixes or sevens, an irregularity that is not infrequently met with in other plants and is simply an illustration of the fact that there is no rule without an exception. The plant, however, has so distinctive a general appearance that it cannot fail to be recognized by any one who has once gathered it, whether he has studied its botanical characters or not.

### Liquor Ergotæ Purificatus.

If there is any one thing, now wanting, in obstetric practice, more than a willingness on the part of the obstetrician to let nature have her course, it is some perfectly reliable means of inducing efficient uterine contractions. I say efficient contractions because every physician of experience has had more than one occasion to condemn oxytocic preparations of every order, even that old, and, as I believe, much abused stand-by, ergotæ, and that too, as prepared by some of our most reliable manufacturers, because of the inefficiency of the contractions induced by their use. Such preparations are worse than useless inasmuch as they bring about the very result which their administration was intended to avoid, viz., exhaustion of the patient's strength by non-efficient uterine effort. Of late I have been using the Liquor Ergotæ Purificatus, and find it, so far as my experience goes, the most reliable remedy of its class I have ever used. Have used it in one case of frightful post partum hemorrhage with the effect of inducing uterine contractions, and permanently arresting the bleeding in less than ten minutes. The dose administered was nearly one half teaspoonful; the dose ten drops, as recommended by the manufacturers being ordinarily too small. On ordinary occasions I exhibit the drug in fifteen drop doses, repeated if necessary, in fifteen or twenty minutes. Thus administered it gives complete satisfaction.

J. W. LOCKHART, M. D.

MILFORD, Nebraska.

### Eucalyptus Globulus.

A woman came to me a few weeks ago to be treated for large ulcer (3 inches in diameter) on her left shin, and which looked suspiciously syphilitic, but by close questioning I could elicit nothing respecting the origin, other than a scratch she gave the place some months ago, and that otherwise she had been very healthy. Having on hand a small sample of eucalyptus globulus I made a dilution of two parts of the fluid extract to alcohol five parts, with directions to apply twice per day on lint saturated with it. Last week she came in cured. Have since learned her husband was syphilitic and of course conclude the ulcer is of the same character.

J. W. HUDSON, M. D.

HENDERSON, Ky.

### Chlor-Anodyne in Ivy Poisoning.

I wish to record an instance showing the remarkable powers of chlor-anodyne, in a case of ivy poisoning where the feet and legs were terribly swollen and in which the itching and burning were almost unendurable. Sulphate of morphia had been tried and instead of relieving pain increased it. Bromide of sodium and the fluid extract belladonna were both applied and proved worthless. Jamaica dogwood also failed, this perhaps was due to the small doses employed, as seemed prudent in a comparatively new remedy, but chlor-anodyne gave almost instantaneous relief. There were no unpleasant consequences though the patient was very nervous and irritable.

H. H. BAKER, M. D.

CLEVELAND, Ohio.

### Gurjun Balsam.

I desire to report the result of my use of gurjun balsam in long standing cases of gonorrhœa, uncomplicated with stricture. In several cases which had resisted the usual list of remedies in such cases, internally and by injection, I gave gurjun balsam with excellent results. I regard it as probably the most valuable agent we have when the discharge seems to be due solely to an atonic condition of the membrane which requires a tonic influence to be exerted on it.

W. BOLAN, M. D.

AUGUSTA, Maine.

### Ammonia for Felons.

Dr. T. C. Brannon's treatment of felons as mentioned in the July number of the GAZETTE, is doubtless valuable, but I have been using for the last 25 years a much more convenient, though somewhat similar remedy, which I have never known to fail to abort the disease and process:

It consists of strong aqua ammonia and water, equal parts. Apply a bandage and keep it wet with the above mixture, and in a few hours, usually, improvement will have set in.

I do not of course, use this mixture after the felon has broken or been opened.

J. P SIDDALL, M. D.

INDIANAPOLIS, Ind.

### Jamaica Dogwood.

I have used the fluid extract of Jamaica dogwood in a few cases, and like it very much. In one case of very severe neuralgia in which the 5th was effected, two one drachm doses effected a cure. Have used it with fine success in sick headache. In a case of pure insomnia it brought about the most satisfactory results. Am glad Jamaica dogwood is added to our list of remedies and believe it to be a long felt need.

W. M. LEWIS, M. D.

GREENSBURY, Ky.

### Jamaica Dogwood.

Some time since, I secured a sample of fluid extract Jamaica dogwood, and having a patient that could not take opium in any size dose, or form, I had an excellent opportunity of testing its virtues. To say that I was pleased with its action hardly expresses it. Taken in from a half to one drachm doses it has never failed to relieve pain, and that too, without any unpleasant after effect; not even making the patient the least drowsy. As a substitute for opium it surpasses anything I know of.

F. H. LITTLE, M. D.

MUSCATINE, Iowa.

# The Therapeutic Gazette

WM. BRODIE, M. D.
CARL JUNGK, Ph. D. } Editors.

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## Our Exchanges.

WHILE it would be an evidence of a lack of susceptibility to one of the best and perhaps one of the most commendable incentives to effort, were we to be unmoved by the many pleasant things we find said of us in our exchanges, both home and foreign, we trust we shall not be accused of merely returning the compliments, in the opinions which we may express on the merits of the journals which we propose noticing in this, and subsequent numbers of the GAZETTE. Lest such a suspicion should find a lodgement in the minds of any of our readers, we would mention the fact that many of the journals which we shall notice have never ventured an opinion regardin g our merits, while it may happen that the most flattering notices which we shall give will not be of those which have said the most pleasant things of us.

A few words by way of preface on the respective merits of our American and foreign exchanges. We have the honor of having on our exchange list al most every medical journal published in the Eng lish language and the great majority of those published in other tongues. These it is our business as well as pleasure to subject to as full an examination and perusal as the other demands on our time will permit. This examination and perusal is, we think, sufficient to qualify us, in a measure at least, to speak knowingly on the subject. The merit of a journal is necessarily adjudged from the standpoint from which it is viewed. Our standpoint is practical medicine, and the adaptation of the resources of nature to the disturbances in the microcosm, man. A journal, therefore, may be of a high order of excellence when viewed from any other standpoint, and yet may not be regarded by us, as best fulfilling the highest aim of medicine, the relief of suffering and the prolongation of human life. From our standpoint, therefore, we are constrained to place American medical journals first, and that, too, notwithstanding the fact that some of these journals themselves affect to disparage our home literature. To say that American journals display greater literary ability or greater scientific research than foreign journals, would be a very unwarrantable statement, for while there are some which are equal even in these respects, it must be conceded that the majority do not display that literary excellence or scientific erudition which is the rule in foreign journals. But while a knowledge of the more scientific divisions of medicine is a necessary groundwork, and grammatical correctness and occasional scintillations, are pleasant and desirable, it is not by paying most attention to these in the periodical literature that the highest object of medicine is best achieved. The place for purely scientific discussions and theoretical disquisitions is in the systematic text books; the medical journals can do most good by becoming the mediums for the interchange of experience among those who are actively in the harness. It is with this conception of medical journals in view, that we give the palm to our home contemporaries. They certainly, in our opinion, are the repository of a greater number of reports of cases than are the foreign journals, which are as a rule more given to articles on the less practical divisions of medicine.

We shall go through our list alphabetically:

American Journal of the Medical Sciences. Very appropriately this journal is the first to receive a notice. Its claim to the leading place among the medical journals of America is based both on its age and on the superior character of its contents. Founded over fifty years ago by Dr. Isaac Hays it soon became the medium for the expression of the best thought of the medical profession, which distinction it still enjoys. On the death of Dr. Isaac Hays, the conduct of the journal fell to Dr. I. Minis Hays who had for many years occupied the position of associate editor, under whose management it is sufficient to say there has been no abatement either in the energy or skill which has won for it its proud position.

American Practitioner, with Drs. Theophilus Parvin and David W. Yandell at the helm. The Paractitioner is now in its twenty-second volume or eleventh year, and the complexion of its editorial staff is of itself a sufficient guarantee both of eminent professional respectability and of a high order of literary ability in its pages. The Practitioner justifies all that we should naturally be led to hope for in a journal edited by two ex-presidents of the American Medical Association, and more than this it would scarcely be possible to say in its praise.

American Journal of Obstetrics and Diseases of Women and Children. If the literature of a science be a reflex of the progress made in it, the journal before us pronounces gynæcology, at least, in America, to be in advance of what it is in other countries. And if the proposition itself be true, its converse is not less true. The devotees to a science make its literature. America, therefore, taking the lead in gynæcology takes the lead in gynæcological literature, and the American Journal of Obstetrics being the leading journal on its subject in this country, it follows, as logically as can be, that it is the best journal in its specialty published. If the correctness of the

logical process through which this conclusion is reached, be questioned, it will only be necessary, in order to remove the doubt, to demand a comparison between this journal and the others.

Atlanta Medical and Surgical Journal, of Atlanta, Ga. Edited by Dr. J. G. Westmoreland. The last number of this estimable journai on our file is that for July, which fact, however, we do not intend to intimate argues that the journal is defunct. Such a calamity would be particularly regrettable in view of the fact that the number before us contains an article from the editor's pen on carbolic acid, which is itsetf a guarantee of the ability of that pen to handle subjects of interest to the profession.

Archives of Medicine, a bi-monthly journal. Edited by E. C. Seguin, M. D.; published by Messrs. G. P. Putnam's Sons, New York. The Archives is a comparatively new journal, being now in its second year. It is eminently a first-class journal and especially adapted to the more advanced physicians, by which is now generally meant to be understood those fitted by education and opportunity to utilize the advances in pathology, and the "instruments of precision," in the formation of diagnosis. In literary and mechanical execution it is a model.

American Medical Journal, edited and published by Dr. Geo. C. Pitzer, St. Louis, Mo. This journal has now reached the tenth number of its eighth volume. It is one of the ablest of the exponents of the school of practice known as Eclecticism—a system of practice peculiarly American, both as to its nativity and the remedies it employs in its therapeutics, it giving especial attention to the investigation of the medicinal virtues of indigenous drugs. We have been unable to detect any radical difference between the teachings of this school as enunciated by its acknowledged leaders, and those of regular medicine, so-called, and have come to the conclusion that the only difference lies in the code of ethics by which they are respectively governed. Dr. Pitzer's journal is always outspoken and decisive in its utterances, and we are glad both to read it and clip from it occasionally.

American Journal of Pharmacy. Edited by John M. Maisch, and published by authority of the Philadelphia College of Pharmacy. This is one of the oldest pharmaceutical journals, if not the very oldest in this country, and as such exemplifies very admirably the doctrine of the survival of the fittest. Its age is a testimony to its worth. There is no pharmaceutical journal published in this country which more faithfully represents pharmacy, the hand-maid of medicine.

## Cold as a Therapeutic Agent.

Any remarks on the therapeutic uses of so familiar and agent as cold would, at first blush, seem superfluous; and yet, it is extremely doubtful whether the profession is as practically familiar as the interests of medicine demand, with the uses of cold either as a leading agent or as an adjuvant in the treatment of disease. It is feared that it has been unduly influenced by the reflex of popular opinion on the subject, which is wont to regard cold as one of the things which above all others is to be dreaded in sickness. "Heat is life, cold is death," is an old dogma and one which still has its adherents.

Cold is a remedy of great power either for good or evil but it requires no ordinary discrimination to properly select the cases in which its use is judicious. An article on the subject in the Med. Record, of January 3rd. last, from the pen of Dr. W. H. Thomson, of the University of the City of New York, attracted our attention at the time of its appearance because of its practical points, and was laid aside for future notice. It is noteworthy particularly because of its instructions as to the modes of employing cold therapeutically, viewing it as a tonic, a styptic, an antiphlogistic, an anæsthetic, and an antipyretic.

As a tonic cold acts as an irritant affecting the vaso-motor system, producing a shock which is followed by reaction. In enfeebled circulation, with loss of muscular power, the general application of cold, as the plunge bath, arouses the heart and restores arterial tone, thus improving the nutrition of the whole body. It is necessary, however, to properly select the subject, for unless proper reaction sets in harm rather than good results; but except in extremely weak persons the application of the bath is seldom contraindicated, the temperature being regulated to suit the case in hand. A cold douche to the nape of the neck is indicated in the following conditions: 1. "When after a sunstroke, the arteries of the head remain dilated and there is headache or dizziness on exertion or on exposure to the sun. 2. In all cases in which headache is confined to one side, and is attended by dilatation of one temporal artery and suffusion of one eye. 3. In false croups, or the crowing respiration of children. 4. In tinnitus aurium when the throbbing is synchronous with the beating of the heart, and the tympanic arteries are distended, the cold douche to the nape of the neck, aided by the internal use of hydrobromic acid, may afford relief."

As a styptic cold acts by constringing the arteries through its influence on the vaso-motor nerves, and probably also through affecting the inherent contractility of the nonstriated muscular fibre. Cold applied externally relieves internal hæmorrhage through reflex action, the primary impression being of course on the periphery of the efferent nerves. The conductivity of the tissue probably enters to a very great degree into the modus operandi of cold as a styptic. Instances of the operation of cold through reflex action are afforded in the following: 1. "Cold water applied direct to a bleeding surface. 2. Ice-bags to the epigastrium to check hæmatemesis. 3. Holding water in one hand to arrest hæmorrhage in the other. 4. Cold foot baths to arrest metrorrhagia. In post-partum hæmorrhage the best means of applying cold is by ether spray, for the sudden and intense impression produced causes effictual contraction of the uterus without chilling the patient. If ether spray is not available cold water should be poured on the abdomen from a height of two or three feet, the shock of the falling water materially assisting the action of the cold. Either of these methods may be used in hæmoptysis."

As an antiphlogistic "in fractures or other severe injuries near joints, the injured parts should be surrounded with pounded ice placed in pig's bladders or rubber bags, two or three layers of perfectly dry muslin being placed between the skin and the bags, lest the patient be chilled too suddenly. A bottle filled with ice mater makes a good antiphlogistic splint for injuries of the hand." It may be laid down that cold judiciously applied is a valuable adjuvant in the treatment of all inflammations, excepting only those of internal organs. Peritonitis, however, with vomiting and meningitis may be advantageously treated with cold.

The virtues of cold as an anæsthetic have probably been too much neglected. In minor operations such as the opening of abscesses, the amputation of fingers, the extraction of teeth, etc, the ether or rhigolene spray is a valuable agent in the hands of the surgeon. In the absence of this a mixture of pounded ice and snow may be employed for the purpose of deadening the skin without injuring its vitality.

The following on cold as an antipyretic we copy in its entirety, because of its conciseness, from Dr. Thompson's article:

*Cold as an Antipyretic.*—When the abnormal elevation of the temperature is due to insufficient radiation of heat, as in some nervous disorders, it is not generally in itself dangerous, for it has been known to reach 123° Fahr., and remain there for several weeks. But if, as in fevers, the rise depends upon excessive chemical changes, then the heat itself is injurious, causing arrest of gland-secretion, as well as extensive destruction of tissue. In every fever there is a certain point beyond which, if the temperature rises, certain structural changes will take place. The glands become affected with cloudy swelling, and fatty degeneration ensues, and the muscles affected in like manner become remarkably brittle. The point at which these changes occur differs in each fever. In scarlet fever it is 105° Fahr., in typhoid 106°. in relapsing fever from 107° to 108°, and in erysipelas still higher. Beyond this dangerous point in each fever the temperature should not be allowed to rise, but must be lowered by the use of cold, the result of which is simply abstraction of heat.

This may be effected by immersion in a cold bath or by the cold pack. Place the patient in a bath of 75° Fahr., and gradually cool the water down to 65° or 60°—never lower—and at the same time use cold affusions to the head continuously. At first the temperature will rise slightly, owing to the blood being driven from the surface into the viscera, which are always a little warmer than the skin; but the bath should be continued until the temperature is reduced to 100°, provided that the fall be gradual—that is one degree in six, five, four, or three minutes. If it fall one degree in two and a half minutes, stop the bath when the temperature has reached 101°; for in most cases a further reduction of one degree will occur after the bath. If the fall in temperature during the bath be one degree in two minutes, the patient should be taken out at once, whatever the actual temperature may be; for in such cases there is danger of the subsequent fall becoming uncontrollable, reaching perhaps 97°, and the patient passing into collapse. Should this at any time occur, wrap him in hot blankets, apply hot saucers to the epigastrium, and give brandy or other stimulants. When for any reason, the bath is impracticabie, the cold pack may be used, always, however, with the same precautions as in the cold bath. First wrap the patient in a sheet wrung out of water at an ordinary temperature—say 70°,—and then lay on other sheets wrung out of iced water. The cold bath or pack should be repeated often enough to keep the temperature below the point of danger for that particular disease. If necessary, use one every hour. If, however, two or three a day are sufficient, one should be so timed as to be given just before the highest rise of the fever-heat —that is, usually, between two and three o'clock in the afternoon. The contraindications to the antipyretic use of cold are hæmorrhage from the bowels and notable variations of temperature from the regular course. Bronchitis and pneumonia are not necessarily contraindications.

## Expectancy in Therapeutics.

The student of the history of medicine cannot fail to have been struck with the variety of conceptions which the medical mind has in different ages entertained of the nature of disease and medicine, and of the relation which they bear to each other in therapeutics. He has noted the fact that in one age disease was personified and regarded as a spirit of evil, of which the possessed could only be relieved by exorcism. In another age it had lost its personality and was regarded merely as a material entity whose presence in the system acted as a foreign body, and which could only be eliminated by potent medicaments of pronounced physical properties, on the principle that no two bodies can occupy the same space at the same time. The doctrine of anti-pathy or allopathy, with its dogma of *contraria contraris curantur*, for a time was in the ascendant, and again the delusion of homœopathy, with its dogma of *similia similibus curantur*, had its disciples, for, be it remembered, Hahnemann was by no means the first to promulgate the absurdity with which his name is now so intimately associated. At one time disease was regarded as an evidence of undue strength, and the antiphlogistic and depressant treatment held sway. Anon it was looked upon as an evidence of weakness and stimulants were plied. These are the principle views upon which the changes have been rung from the earliest authentic records, and although none of them have at the present day even a very general endorsement among practitioners, it is a suggestive commentary on the enlightenment of the age, and on the boasted advances in science, that each of then has still its followers among those who have assumed the role of the physician, while scarcely the least absurd of them has through certain attractions which it has for the popular mind, been brought into some prominence.

The views which we have above alluded to are very generally, among physicians at least, conceded to be the outcome of an imperfect medical education, and, consequently, of an incorrect appreciation in the first place of laws of the healthy

body, and again of the nature of the disturbance to which has been applied the term, disease. Doubtless ignorance is, in most cases, the mother of devotion to these absurdities, but what shall we say when we find those whom we are wont to regard as our leaders, advocating ideas scarcely less absurd, and having in them the possibilities of mischief scarcely less grave? The present century, and particularly this latter half of it, has been characterized by great advances in science, and great progress in medicine. This progress has been due to the increased attention which has been given to biology and to the delving into the mysteries which are hidden beneath their external manifestations. Pathology, too, as the study of the changes which ensue on the disturbance of function, has received attention hitherto unknown. These studies have been recognized by the rank and file as invaluable and it has come to be the fashion to regard those who devote themselves thereto as occupying a higher plane in medicine, and we do not dispute the claim. There is a danger, however, of committing the mistake of according to the opinions of these investigators on questions which they have not properly investigated, the same weight that is attached to their expressions on the subjects the study of which has won for them their spurs. Because the physiologist and pathologist have laid for us a deeper and more stable foundation it does not follow that their views on the superstructure, to which they have given comparatively little attention, should bias those who starting on the foundation laid by these men have devoted themselves to the perfecting of the edifice. And yet such, it is feared, is the error into which many are falling. Our physiologists, and pathologists, and microscopists, and histologists, enthusiasts as they are, and invaluable as is their work, are nevertheless human, and are tainted with the error which attaches to hobbyism of whatever nature, of regarding the subject to which they have devoted themselves as of paramount importance. It is a notorious fact, that the German medical professor is a very indifferent practitioner; the bent of his mind is in the direction of pathology and he, practically at least, regards it as the greatest success of the physician to have correctly diagnosed the disease, and to have indicated the pathological changes induced. His greatest joy and the hour of his supreme triumph is when the *post mortem* verifies his diagnosis!

The physiologist impressed, as he must be through his studies, with the beautiful mechanism of the body, with its wonderful adaptation of means to ends, and the pathologist who has observed its marvellous recuperative power, are wont to regard the *vis medicatrix naturæ* as omnipotent, or at least conclude that what it cannot accomplish in the way of righting the disturbance, cannot be accomplished through any device of man. They thus become, practically, therapeutical nihilists, and deny to drugs any virtue in sickness. The views of these men, as might be expected, influence their practice, and we look in vain to find in their ranks the successful physician; but notwithstanding this fact the influence of their views, through the reason we have indicated, is felt, and as a consequence we have the medical dilettanteism, amounting to almost pure expectancy, which prevails so largely in some circles. It is, indeed, a matter of boast among such that they know little or nothing of drugs, beyond the facts that opium relieves pain, that calomel in proper doses purges and that quinine cures intermittents.

The most prominent modern apostle of this heresy is Prof. Austin Flint, M. D., of New York; and such is his influence that he has surrounded himself with something of a following, especially in his own city, where, notwithstanding the assumptions of superiority, therapeutics is at a lower ebb than it is among the practitioners of the western prairies, whom the New York physician affects to despise, Dr. Flint maintains that disease is inherently self-limited, and that if its victim have sufficient powers of endurance to withstand the fixed period of the onslaught he will recover; otherwise he will succumb. He evidently admits of no exception to this rule, regarding even consumption as a self-limited disease, which numbers more victims than any other disease simply because fewer patients can hold out long enough to let it have its course. In the Medical Record of 25th ult. is published an instructive clinical lecture on typhoid fever, delivered by him to the students of Bellevue Hospital Medical College, instructive, however, only as illustrating the mischievous teaching to which the future physician is subjected. The history of the case through ten days of its progress is minutely given and the minutest variations in temperature carefully noted. During the progress of the case pneumonia, or as it is termed "bilateral œdema," was developed. The case was evidently one of usual severity but the only treatment mentioned is the cold pack, and the lecture closes with the following: "The treatment aside from this, please bear in mind, has consisted of *alcohol as a sustaining agent*, with milk for diet, and except in those cases where there is a repugnance to milk, this, as an article of diet is to be preferred." (The italics are ours). The outcome of the case is not given, but it is presumed that the victim lived long enough to afford the disease a fair chance.

No wonder that therapeutics, in the words of Dr. Andrew Clark, "the highest department of our art, and one of its chief ends, is in a backward and unsatisfactory condition." As long as the opinions of those who have the least to do in the treatment of disease—the theorists of the closet and the savans of the laboratories—have more weight than those of the physicians who bear the heat and burden of the day, and are in constant contact with disease, the progress of therapeutics will be seriously handicapped. It is high time that the latter throw off the yoke which they have too long tolerated.

## Obituary.

DR. FRANK H. DAVIS.—Died at his residence, in Chicago, August 17th, 1880, Frank Howard Davis, M. D., aged 32 years, two months and twelve days.

Amid the numberless brief notices of similar import written of others, which are constantly meeting the eye of the reader, the above will especially arrest the attention of a larger number of friends and acquaintances than men of the age of the subject of this notice are generally privileged to have on their list. Dr. Davis was

a young man of promise, well read and enthusiastic in his profession, of an energetic and, withal, amiable nature. He had closely identified himself with the American Medical Association and with the Illinois State Medical Society, and was what is known as a working member. He was for several years connected with medical journalism, during which time he was secretary of the Association of American Medical Editors. He was a ready writer though not aggressive, his writings being characterized by the amiability and kindliness which was his marked trait. He had a rare mechanical genius and a fine appreciation of art, the latter qualities being displayed in the devising and modifying of instruments for his own use and in the modeling of a very accurate life sized bust of his father, Dr. N. S. Davis.

Dr. Davis' death, as shown by a post mortem examination, was chiefly due to acute pyæmic or suppurative inflammation of the left kidney, accompanied by so persistent a reflex irritation of the stomach, that during the last three weeks of his life, he was nourished solely by enemas.

The sympathy of the profession will go out towards the parents and family of our departed friend in their sad bereavement.

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Died, at the residence of his mother, at Amherstburg, Ontario, on the 9th inst., Dr. Andrew Borrowman, of Detroit, Michigan, aged 38 years.

Dr. Borrowman graduated from the medical department of the University of Michigan in the class of '69, and immediately after settled in this city. During his residence here he won for himself the proud reputation of a gentleman, courteous, unassuming and above anything not strictly honorable. He took an active part in educational matters and was for several years a member of the city Board of Education, in which capacity he made for himself an honorable record. He served also for several years as City Physician. As a physician he was distinguished for closeness of attention to his duties and for thorough honesty and strict conscientiousness. His death was caused by acute phthisis.

At a meeting of the profession of this city, held at the office of Dr. William Brodie, on the 10th inst., called for the purpose of taking appropriate action on Dr. Borrowman's death, the following preamble and resolutions were unanimously adopted:

WHEREAS, It has pleased a beneficient Providence to remove by death one of our number while in the youth of manhood and with bright prospects of a promising professional career; a man of clear instincts of right and wrong, and one who dared to carry out his principles; a kind and conscientious physician, a good citizen, and a courteous gentleman; therefore.

*Resolved.* That in the death of Dr. Borrowman the profession has lost a valuable and intelligent member, and the public the services of an intelligent physician.

*Resolved.* That the medical profession attend his funeral, by a committee, at Amherstburg, on the 11th inst., at 3 o'clock P. M., and by so doing pay our last tribute to his memory.

*Resolved*, That a copy of the above preamble and resolutions, signed by the chairman and secretary, be sent to his afflicted mother and relatives; that we condole with them in their loss, and join with them in the hope that it may inure to his eternal gain.

A committee composed of Drs. Brodie, Klein and Mulheron was appointed to attend the funeral on behalf of the profession of this city.

Vale! our dear young friend.

## The Canada Medical Association.

The thirteenth annual meeting of this Association was convened at Ottawa, the Capital of the Dominion, on September 1st and continued in session two days. Delegates were in attendance to the number of upwards of a hundred from the different provinces, and the American Medical Association was represented by Drs. Brush, of Utica, N. Y., Goodwillie, of New York City, and Brodie, of Detroit, Michigan. The latter gentlemen were created honorary members of the Association.

The meeting was a very enjoyable one as well as contributive to the advancement of science. Human nature is very much the same the world over, and we were unable to detect any material difference in the way in which our Canadian brethren demean themselves at their national gathering, from that with which we are familiar from frequent meeting in our own national association. At the recent meeting old acquaintances struck hands, mingled together in social communion and had a good time generally, with some science thrown in, just as we do it ourselves at our annual re-unions The social part of the programme was excellent and the scientific part was carried out in a manner highly creditable.

We regret the lack of space which prevents us from giving even a short digest of the proceedings. For the many courtesies exhibited to us individually we take this opportunity of returning our warmest thanks.

## A Consultation Prescription Book.

DR. G. P. HACHENBERG, of Austin, Texas, is engaged in the compilation of a "Consultation Prescription Book." To give thoroughness to his work he respectfully solicits from practitioners information of:

1. Any remedial agent of value not generally recognized in medical works.

2. Their experience in the use of formulary preparations of value, that have been of late years placed in the medical market by several of our leading laboratories.

3. The contribution of favorite prescription, not necessarily original, but authenticated and of well approved efficacy.

4. And their individual opinion of the therapeutic value of the leading medicines, relatively considered from one to 100.

Any aid of valuable import, either through recent publications or direct from practitioners will be thankfully received and duly accredited in the work itself.

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IN Dr. Bentley's article on Coca in our last issue, for "drunks," as used in the report of case 4., read "drunkards," as the doctor intended the word to appear.

## Book Reviews and Notices.

A Practical Treatise on Tumors of the Mammary Glands Embracing their Histology, Pathology, Diagnosis and Treatment. By Samuel W. Gross, A. M., M. D., Surgeon to, and Lecturer on, Clinical Surgery in the Jefferson Medical College Hos-

pital and the Philadelphia Hospital; President of the Pathological Society of Philadelphia, etc., etc. Illustrated by twenty-nine (29) engravings.
New York: D. Appleton & Co., 1, 3 and 5 Bond St. 1880.
Detroit: Thorndyke Nourse.

This work is dedicated by an affectionate son to his talented father, Samuel D. Gross, M. D., LL. D., D. C. L., Oxon, Professor of Surgery in the Jefferson Medical College. "The design of the work is to reconcile the clinical features and the minute structure of tumors of the mammary gland."

The contents embrace the classification and relative frequency of tumors of the mammæ—the evolution and transformation of mammary neoplasms—the etiology of neoplasms of the mammæ—the anatomy of the connective tissue neoplasms; fibroma; sarcoma; myxoma; adenoma; carcinoma; cysts. The diagnosis of tumors of the mammary gland; the treatment of tumors of the mammary gland and tumors of the male mammary gland. In our practice we have often wanted such a work as this. The importance of a correct diagnosis of the changes that so often occur in this important organ cannot be gainsaid, and any information that may can be obtained is of more than common value. We congratulate the author in giving the public so much valuable information upon such an important organ, and here we commend it to the profession generally as giving information that may tend to prolong the lives of those so unfortunate as to be afflicted with mammary diseases, and which cannot be obtained in so concise a form in any other work on the subject.

Hygiene and Sanative Measures for Chronic Catarrhal Inflammation of the Nose, Throat, and Ears. Part I. By Thomas F. Rumbold, M. D.
St. Louis: Geo. O. Rumbold & Co. 1880.

There is much in this book to commend it and yet there is much that we cannot indorse. Difference of latitude and longitude may have more to do with it than personal observation, hence it is possible that in St. Louis and neighborhood it may be necessary to wear the underclothing from one to three weeks before changing. But we cannot see the force of the quotation from "Dobell" in regard to sleeping rooms, because in England the climate is so very damp, while in this country we have the opposite. For if dry the coldness is immaterial.

It is not our purpose to be hypercritical; the book contains much valuable advice, and which if followed in the main will produce beneficial results. We commend it to the laity as well as to the profession, for to the former it is of much the more practical utility.

A New School Physiology. By Richard J. Dunglison, A. M., M. D., Author of the "Practitioner's Reference Book," "Dunglison's Medical Dictionary," "History of Medicine," etc., etc. Illustrated with 117 engravings.
Philadelphia: Porter & Coates.

The author has been very successful in the work he set out to perform, and if physiology is to be taught in public or private schools we would recommend Dunglison's School Physiology. The subject of Generation inserted in other works of the kind has been omitted, and very properly, and only matters pertaining to osteology, digestion, absorption, respiration circulation, animal heat, secretion, the nervous system and the senses have been introduced. Each subject is followed by the proper questions. The book is clear and sufficiently comprehensive, and we therefore cordially commend it.

## Pamphlets Received.

Drainage and Underdrainage in their Sanitary and Economic Aspects and the Sewerage of Cities. By S. D. Seeley, M. D., President of the Medical and Surgical Society of Montgomery, Member of the Committee of Public Health of the State Board of Health of Alabama. Prepared at the request of the Chairman of the Committee of Public Health.

Pregnancy Vomiting. By J. Marion Sims, M. D., LL. D. Report from the Archives of Medicine, June, 1880.
New York: G. P. Putnam Sons.

Suggestions on the Management of Natural Labor. By J. W. Singleton, M. D., of Paducah, Ky. Reprint from St. Louis Medical and Surgical Journal, June 20, 1880.

The Ann Arbor School of Music. Under the direction of Calvin B. Cady, Instructor in Music in the University of Michigan. (not a department of the University). Opened Sept. 14, 1880.

Regulations for Examinations in Sanitary Science by the Michigan State Board of Health. List of books which will be found valuable to candidates for examination in Sanitary Science by the Michigan State Board of Health. The books are classified the same as the topics published in the regulations for the examinations. From the Secretary, Henry B. Baker, M. D., Lansing, Mich.

To publish the list in the GAZETTE would occupy too much of our space, as they cover seven pages of closely written royal letter. We think the Board ought to publish them in pamphlet form, and also any other works bearing on the subject, as the whole would make a valuable sanitary catalogue.

Light in the Public Schools and School-Life in Relation to Vision. A paper read before the Sanitary Convention at Detroit, January, 1880. By C. J. Lundy, M. D., Prof. of diseases of the Eye, Ear, and Throat in the Michigan College of Medicine, and Surgeon in Charge of the Michigan Free Eye and Ear Infirmary, Detroit. Reprint from the Report of the Michigan State Board of Health Sanitary Convention.

Transactions of the Mississippi State Medical Association. Vicksburg, April, 1880. Thirteenth Annual Session with a role of members and reports on medical topics. The roll shows a membership of 200, and the proceedings of more than ordinary interest in medical matter. Dr. E. P. Sale, of Aberdeen, President, gave an excellent address on "The Duties we owe our Women." On the whole we must congratulate our brethren of Mississippi on their State Medical Association.

Monthly Bulletin of the North Carolina Board of Health, Wilmington, N. C., July, 1880. Compiled by Thomas F. Wood M. D., Secretary.

English and Classical School for Boys and Young Men from 10 to 20 years old, Anselm B. Brown, A. M., (Yale) Principal. 1880-81. 48 Farmer Street, N. E. corner Monroe Avenue, Second floor, Detroit. Number of scholars limited to thirty. Catalogue of pupils for 1879-80.

Order of Exercises Michigan College of Medicine 1880-81. Regular term.

Order of Exercises Detroit Medical College for the Freshmen Junior and Senior Classes. Regular Term. 1880-81.

## Therapeutic Progress.

PHYSIOLOGICAL ACTION OF THE FORMIATE OF SODIUM.—On September 1, 1879, M. Arloing read

a paper on this topic before the French Academy of Science. The following abstract of this paper appeared in the Archives Générales de Medicine for November, 1879.

If five successive doses of a solution of formiate of sodium be injected into the veins of a dog or of a horse, the circulation will be modified in the following manner: After the first injection the number of the heart's contractions is diminished, the capillaries of the general and of the pulmonary circulation are dilated, the arterial pressure falls and the diastolic force or the accumulation of blood in the centrifugal vessels is increased; when a powerful dose of the medicine is introduced into the blood, the heart is accelerated and the systoles lose their energy. If a large dose of the formiate is introduced into the interior of the right ventricle, the contractions of the heart will be lessened, or they may be entirely arrested. This arrest may be permanent; otherwise the heart will recover itself, and this occurs the more rapidly the less considerable the quantity of formiate injected; after the recovery of the heart, the effects of large doses may be observed.

Small doses increase the number and the amplitude of the respiratory movements. Medium doses lengthen the expiration, and sometimes cause a series of short, quick movements, separated from each other by a profound inspiration and a prolonged expiration. Large doses accelerate the respiratory movements and diminish their amplitude. A very large dose occasions, at the moment of injection, a short arrest of expiration; respiration soon reappears and presents a very great acceleration and a gradually increasing amplitude; these phenomena disappear in the course of twenty or thirty seconds, and are followed by a slowing and a diminution of the amplitude of the movements of the thorax, and by a tendency of stoppage in expiration.

*Toxic dose.*—Formiate of sodium is toxic when the dose exceeds one gramme for each kilogramme of the animal's body weight. Death is announced by shallow, quick inspirations separated by a short pause for expiration; the movements of the chest are arrested in expiration. The heart, which continues to beat for about fifty seconds after respiration has ceased, before it stops, shows a very great slowness in contraction and great systolic feebleness.

*Calorification.*—The formiate of sodium reduces the animal temperature. Gradual poisoning by this drug causes a reduction in the temperature of from two to five degrees in an hour. This reduction of temperature is caused by: (1) the great dilatation of the superficial capillaries; (2) the diminution in the amplitude of the respiratory movements; (3) especially by the modifications of the interchange of gases in the lungs, and by the retardation of organic combustion. If the expired gas be analyzed, it is found that during the action of the formiate of sodium, there is a decrease in the amount of carbonic acid exhaled and an increase in the amount of oxygen, that is to say, that diminished elimination of carbonic acid by the lungs is accompanied by a decrease in the oxygen taken up. If a comparative analysis of arterial blood be made there will be found a simultaneous decrease of the sum total of carbonic acid and of oxygen. As a consequence, while the absorption of the oxidizing principle is diminished in the lungs, the combustion of hydrocarbons in the tissues is also diminished. We have not yet studied the effect it has on the elimination of urea.

The effects which we must thus assign to the formiate of sodium place it in the first rank of defervescents. We recommend this compound to the attention of physicians, since they can use it with safety in certain cases where salicylate of sodium would be of very doubtful efficacy; for the formiate doses not produce congestion of the kidneys, as does the salicylate, nor does it affect the heart as profoundly as does the latter medicine. —*Physician and Surgeon.*

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### Hyperdistention of the Pulmonary Alveoli as a Therapeutic Agent in Chronic Disease of the Respiratory Mucous Membrane.†

I have long sought for an apparatus applicable to the convenient administration of inspirations of condensed air. All the available apparatus that I have seen is so bulky as to practically confine the treatment to the office of the practitioner, to the great consumption of his time, and to the corresponding expense of the patient; circumstances which necessarily limit resort to this valuable therapeutic agent. The apparatus of Waldenburg is very satisfactory, and in the cheap form constructed for the clinical room of the laryngoscopic department of Jefferson Medical College Hospital, is not beyond the reach of patients in quite moderate circumstances; but it is by no means a portable instrument, and until a portable instrument is constructed at a moderate cost this method of treatment is not likely to make much progress in America, despite the favor that has been awarded it in Europe.

It was with great pleasure, therefore, that about a year ago I received a letter from my esteemed friend, Dr. W. Y. Gadbury, of Yazoo City, Mississippi, detailing me a plan he had adopted successfully in a number of instances.

Dr. Gadbury employs the rubber compressor of the hand-ball atomizer; and his plan is as follows: The patient, having dilated his lungs to their greatest capacity by a forced voluntary inspiration, immediately compresses the nasal passages with one hand, while he places the tube of the compressor between his lips with the other, then closes the lips gently upon it, and rapidly works the compressor. A few squeezes pump an intermittent current of compressed air into the lungs; and as soon as the distention becomes unpleasant, or the need of an expiratory movement is required, the instrument is withdrawn, to be replaced and re-employed in the same manner a few moments subsequently; the operation being repeated four or five times in succession.

I have given this plan a trial during the past year, in my private practice, and in the clinical practice of the hospitals with which I am connected, and am in a position to estimate its value and capabilities. It cannot be safely employed in all the cases in which insufflations of compressed air, as supplied from the apparatus of Waldenburg

† Medical and Surgical Reporter, June, 1880.

and others, are applicable; but it has a sufficiently wide range of utility to commend it to professional attention; and in a certain class of cases, to which allusion will be made presently, it is of greater service than the bulky machines adverted to.

In patients liable to hæmoptysis, or other hemorrhages, and in certain cardiac and visceral disorders, the intra-thoracic compression, if left to the patient, is apt to be too powerfully exercised, and thus to be absolutely detrimental; and it is to the hands of patients that the instrument is to be confided. It is seldom safe to employ compressed air with a pressure exceeding from one-sixtieth to one-thirtieth of an atmosphere, and quite delicate handling of the ball-compressor is requisite to keep within this limit, while the size of the compressor prevents access of air in large volume, or at constant pressure. Thus, for general purposes, this plan, unmodified, cannot supersede the use of more complicated appliances.

There is one use of the Gadbury method, however, to which I desire to call the attention of the profession, prominently; and that is its employment as a mechanical expectorant. Time and again I have placed the little compressor in the hands of a patient with bronchioles and air-cells clogged with mucus and pus, to see its use immediately followed by copious expectoration, to the great comfort of the patient. The process is repeated until it ceases to be followed by expectoration, and then there is absolute or relative relief from the desire to cough, until re-accumulation indicates a renewal of the procedure at intervals of a couple of hours or longer, according to circumstances. I have frequently availed myself of this method of clearing the air passages previous to careful physical examinations, when abundance of moist râles were present, and have been better able to estimate the actual conditions of the respiratory organs on auscultation afterward. Hence, in chronic bronchitis, of whatever origin, compressed air can be employed with advantage in this way, to discharge the mucous accumulations from the air passages, and spare them much of the topical irritation to which they are otherwise subjected. In a few instances I have seen chronic bronchitis relieved by the use of this method, without any medication whatever, and far more rapidly and effectually than follows the administration of medicinal expectorants, which are too often coupled with the disadvantage of interference with the process of nutrition by their nauseant influence upon the alimentary tract.

The physical action of this mechanical expectorant is simple. The hyperdistention of the air cells permits the access of air under pressure to points beside and beyond the masses of mucus clinging to the walls of the bronchioles and alveoli, and excites effective cough, which removes the partially detached masses. Several of my consumptive patients clear their passages out at bedtime in the manner indicated, and secure a good night's rest, free from disturbance by cough, without the administration of opiates. When they rise to dress, they clear the parts of the accumulation over night, in like manner, and attack their breakfast with relish. Some individuals have little or no occasion to expectorate during the intervals, and can pursue their vocations, relieved of the frequent and recurring plague of an annoying and harassing cough. The therapeutic advantage of an agent capable of doing this much is incontestable; and it is for the purpose of drawing attention to this simple and inexpensive contrivance, and of having its merits tested on an extended scale, that this article has been written.—*J. Solis Cohen, M. D., in College and Clinical Record.*

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THE REVISERS OF THE U. S. PHARMACOPŒIA.—English physicians have certainly never had to complain of a preponderance of pharmaceutical members on the committees for the revision of the Pharmacopœia. But such a complaint is made by physicians in America in regard by the United States Pharmacopœia. The sixth decennial convention for its revision met at Washington on May 5th, when about forty different incorporated societies and institutions were represented by delegations. Besides these incorporated organizations, delegates were also present from the medical department of the army and navy, and from the medical hospital service. A working committee of twenty-five members was formed, of which the majority are pharmacists. "Perhaps," remarks the THERAPEUTIC GAZETTE, "this prominence may be conducive to the more effectual preparation of a work in which the practical working physician is so directly interested, but it seems to us that a very grave mistake has been made. It is true the eligible preparation of drugs resides in the hands of the pharmacist, but at best he is but the servant of the physician, and in the preparations which he makes he should be guided solely by the therapeutical indications, which the practical physician alone is qualified to point out. Medicine and pharmacy have of late years been drawing more nearly together, and each is yearly becoming more dependent on the other, but we apprehend that the physicians of the country will be loth indeed to surrender what have been considered their prerogatives, so largely into the hands of the pharmacist, as it would seem that they are called upon to do by the constitution of the above committee."

In the new edition, all measures of capacity are to be abandoned, and quantities are to be expressed only in parts by weight, except in the case of fluid extracts. This will doubtless entail a little confusion among those who are wedded to the present method of indicating the quantity of all fluids by measure, but the plan proposed will add very much to accuracy in prescription. The "Materia Medica List" and the "Preparations" are to be abolished as distinct portions of the work, and all articles are to be arranged in alphabetical order, such headings, however, as "Extracta," "Infusa," "Tincturæ," etc., to be retained. At the head of each article a short paragraph is to be added, giving the names of all the preparations into which the substance treated of in this article enters. To all crude drugs of animal or vegetable origin, concise but complete descriptions are to be added, sufficient to indicate the distinctive characters visible to the naked eye, and when necessary, such as are visible under an ordinary pocket lens magnifying about ten diameters.

In the new Pharmacopœia, temperature is to be expressed both in degrees of Centigrade and

Fahrenheit, and uniform methods for taking the specific gravity are to be described. Whenever it is necessary to employ definite expressions of weight, as for instance, when it is directed that a pill mass is to be divided into certain pills containing a certain weight of one or more constituents, this weight is to be expressed both in decimal and apothecaries' weight. In all formulæ the metric system is to have its place, but not exclusively.

In thus seeking to introduce the decimal system in a gradual manner the convention is considered to have acted very judiciously. A strong effort was made to have a list of doses added to the new Pharmacopœia, but the objection to this from the medical men was sufficiently strong to defeat the effort.—*London (Eng.) Chemists' Jour.*

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Rectal Alimentation.—Dr. Michelacci, of the Florence Medical Clinic, while fully appreciating the utility of nutritive enemata, recommends that they should be administered with the following precautions:—1. The large intestine should be cleared out by one or more oily or simple enemata. 2. To whichever nutritive substance we may give the preference, and which must be determined by the special circumstances of the case, it should always be administered at the temperature of the body—37° or 38° C. 3. The enema should be injected slowly, and by means of a long syphon, so as to carry the nutritive material as high as possible; it should be also employed in small quantity, it being preferable to give a greater number of small enemata to one or two large ones. 4. Every nutritive clyster should be preceded by another composed of fifty or sixty grammes of water and six or eight drops of laudanum, this rendering the surface of the canal less intolerant of the nutritive clyster, and enabling this to be longer retained; the same object may be attained by adding a few drops of laudanum to the clyster itself. 5. When enemata containing alcohol are employed we should not add the peptones to these, as they induce alterations and disturb the power and action of the digestive ferments. 6. As little fatty substance as possible should be employed, as this is for the most part not absorbed, and irritates like a foreign body. The peptones themselves should be used only with moderation, as they are for the most part irritants. 7. The clysters may be usefully injected in a neutral condition, or rendered slightly alkaline by bicarbonate of soda. 8. Should inflammatory action be induced, the enemata should, if possible, be suspended, or those which are least irritating must be chosen, and largely combined with laudanum. In concluding his paper, Dr. Michelacci observes that there can be no doubt that the large intestine can absorb sufficiently to allow of temporary alimentation being obtained by its aid; but that we are far from having the means at our disposal of making a large use of this therapeutical agency; and he suggests, as a useful subject of investigation, the preparation of injectable substances which will also admit of keeping for use. He also observes that this mode of treatment requires so much care and precaution in its employment, that he is in as much fear of the fanatics of rectal alimentation as he is of those who absolutely deny its efficacy.—*Los Sperimentale*, June.

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On the Therapeutic Uses and Toxic Properties of Pyrogallic Acid.—M. Neisser (Zeitschrift für Klin. Med., bd. i. p. 88) reports a fatal case in contradiction to the reassuring statements which have been made of the harmlessness of pyrogallic acid. The patient, a strong man, æt. 34 attacked with universal psoriasis, two hours after one-half of his body was rubbed with rhubarb ointment (for comparison), and the other with pyrogallic acid ointment felt himself very uncomfortable; then followed shivering, malaise, vertigo, collapse, torpor, coma. The temperature was 40.1° C. (104.2 degrees Fahr.); pulse, 96 to 120; urine very dark, free from albumen. Shortly before death, which followed in eighty-four hours, the urine—which during the whole duration of the illness only amounted to 1,600 cubic centimetres—showed the highest degree of hæmoglobinuria. The post-mortem examination confirmed the diagnosis of dissolution of the blood. In consequence of this important case, the author instituted a series of researches on animals, which showed that rhubarb in any form, as well as chrysophanic acid, is harmless; that even in very large subcutaneous doses (10 to 15 grams), the coloring matter indeed appeared in the urine, but the animals remained healthy, even as regards the local phenomena in the spots injected. On the other hand, pyrogallic acid showed itself to be an intense poison. In small doses it is decomposed by the alkaline blood, and absorbs a part of the loosely combined oxygen with discoloration of the blood. In large doses it destroys the red blood-corpuscles, and changes the character of the blood so that circulation becomes impossible; it also causes hæmoglobinuria with formation of pigment-cylinders in the urinary tubes, and often in this way rapidly produces death. The anuria resulting from the obstruction of the urinary tubes is too short in duration to make death from accumulation of the injurious urinary elements a possible contingency, but the closure of many uriniferous tubules favors the retention of the pyrogallic acid in the urine, and thus increases its toxic effect. On this account diuresis must be excited as much as possible, and in case of need the damaged composition of the blood must be repaired by transfusion. In any case, it follows from these clinical and experimental observations that the use of pyrogallic acid is to be prohibited in all cases where large parts of the surface of the body are to be treated as in universal psoriasis; it can, on the other hand, be employed without mischief for smaller surfaces of skin (psoriasis of the head and face; lupus; epithelioma.) Rosa Engert has had good results with pyrogallic acid, used as a local irritant, not only in skin-diseases, but in cancroid of the vaginal mucous membrane.—(*London Med. Record*, February 15, 1880.)

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The Therapeutic Use of Pancreas.—All attempts to utilize in a therapeutic sense the very active properties of the pancreatic juice have hitherto failed. This want of success, according to Engesser (Deutsches Archiv für klin. Med., band xxiv. p. 539, and Gazette Hebdomadaire,) is owing to the

necessity by a natural tendency of first isolating the ferments, in order to administer them afterwards in the pure form. These isolated ferments being destroyed by the pepsin of the stomach in normal digestion, the only field left for their use is the very limited one of the large intestine. The pancreatic parenchyma, or even the fresh watery extract, on the contrary, retains its digestive properties whilst passing through the stomach. This point, though difficult to explain, is supported by numerous observations and experiments. Unfortunately, patients take the pancreas cut into small pieces, or pounded and passed through a seive, with the greatest repugnance. To avoid this serious drawback, since the use of the pancreas should be greatly prolonged, the author has had many preparations made. He finally settled on the following method: The gland, cut in small pieces, was reduced in vacuo at 104° Fahr. to an extract, then treated during forty-eight hours by absolute alcohol, which is afterwards carefully evaporated. A coarse light brown highly hygroscopic powder is thus obtained, which patients take without disgust, and which possesses all the qualities of the fresh watery extract. If clinical observations be consulted, it will be found that the action of the pancreatic juice is clear enough, but that the indications for it remain very limited up to the present time. Fles published in 1864 the case of a diabetic patient, who ate a great deal of meat and fat, and in whose stools a quantity of fatty matter and muscular tissue were found in an unchanged condition. The use of the pancreatic juice caused these undigested fragments to disappear immediately, but they reappeared directly the administration of the drug was left off. This remarkable observation may be considered as a type of the circumstances in which the pancreatic parenchyma may be usefully employed. Engesser has obtained good results in cases of acid dyspepsia, etc., whenever the presence of undigested muscular fibres is detected in the egesta. The use of pancreatic juice has in every instance removed these fragments, but produced very slight improvement in these essentially chronic diseases.—(*The London Med. Record*, June 15, 1880.)

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Best Mode of Giving Ergot.—Dr. A. Luton, Professor of Clinical Medicine in the school at Rheims, discusses this question quite fully, and strongly commends the hypodermic nse of this drug whenever it is indicated. He is not in favor of any of the so-called ergotines of commerce, and prefers the simple alcoholic tincture of the Codex. He contends that the vehicle, alcohol, is no more irritating than those advised to dissolve ergotine, such as glycerine, or chloroform, ether, etc., which have also been injected under the skin. The pain produced by the alcoholic tincture is slight and transient, especially if the point selected for the injection has a thick layer of cellular tissue, such as over the abdomen or towards the haunch. He has never observed an abscess to to form after it has been used.

As to the dose, he has obtained as good results from one gram of the tincture (15.4 grains) injected, equivalent to twenty centigrams (3 grains) of the powder, as from the usual dose given by the mouth. Given by the mouth, ergot, like other fungi and highly nitrogenized bodies generally, must be partially digested or destroyed, hence we fail to get the full medicinal results of the dose, while, if it is given subcutaneously, we shall obtain its entire therapeutic power. Theoretically, we ought to reach definite results by giving ergot hypodermically, which we cannot expect when it is given by the mouth. Practically, we find this to be true. In two cases of hæmaturia treated by Prof. Luton in the Hotel Dieu, of Rheims, no effects were produced by daily doses of ten grams of the tincture given by the mouth while daily injections of one gram of the same tincture caused the symptoms to disappear in two or three days.—*Union Med. et Scientif. du. Nord-Est*, June 15, 1880.

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Action of Various Diuretics.—Dr. Maurel gives the result of his experiments (Bulletin General de Therapeutique) as follows:

1. Nitrate of potassium, uncertain as to the quantity of liquid, augments the solid material of the urine to a notable degree. The most active doses are a drachm to a drachm and a half.

2. Chlorate of potassium, less active with respect to the argumentation of solids, increases the fluids of the urine to a greater degree.

3. Acetate of potassium is uncertain, as to the quantity of both solids and fluids.

4. Iodide of potassium, far from being a diuretic, even seems, to diminish the quantity of urine.

5. Salicylate of sodium, uncertain as to the quantity of liquid, increases the solid constituents of the urine.

6. Of three vegetable substances experimented upon—squill, colchicum and digitalis—the latter alone is a real diuretic. It augments at the same time the quantity of both solids and fluids. Dr. Maurel gives it as his opinion that no diuretic acts when the system is in a febrile condition; this must be modified before diuresis can occur.—*Buffalo Med. and Surg. Journal.*

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Therapeutic Action of Sulphate of Cinchonidin.—M. Poncent had occasion, during his stay in Africa, to administer sulphate of cinchonidin to patients suffering from intermittent fever. He noted with care the results obtained, which do not agree with those arrived at by M. Laborde, based upon experiments formed on animals. According to M. Laborde sulphate of cinchonidin possesses a well marked convulsive action. M. Poncet, however, administed the drug to the greater number of his patients in the very large dose of four grams per diem; but in no case did they present any symptoms of intoxication. The only appreciable effect was a marked slowing of the pulse rate, but no symptoms of any convulsive action presented themselves.—(*Le Progès Médical* Feb. 7, 1880.)

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The Treatment of Chronic Eczema.—Avoid the use of soap as this is irritating. Twice a day, bathe the part in an aqueous solution of borax, one ounce to the pint. Dry without friction and freely apply the benzoated oxide of zinc ointment, then bandage the part firmly with old dry muslin which has been previously wet

with a saturated aqueous solution of borax. Over this apply a bandage of oiled silk, in such a manner as to exclude the air perfectly. Let the bowels be kept regular. In the majority of cases eczema may be promptly cured by the simple exclusion of the air. Eczema of the fingers will generally yield in a few days if the air be excluded by the ordinary rubber cot.—*Chicago Med. Review.*

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Treatment of Itch at the St. Louis.—In the Medical News and Abstract, June, 1880, Prof. Hardy is represented as having employed for eighteen years, in the treatment of itch, an ointment of lard, one part; flowers of sulphur, one-sixth part; sub-carbonate of soda, one-twelfth part. Thorough and almost violent frictions of this ointment, continued for twenty or thirty minutes, especially at the natural bends and folds of the skin, always cure. The friction was repeated only once in four or five thousand cases, and all the patients were cured. After rubbing, the ointment should remain all night. On the following day an emollient bath may be taken. This may be repeated daily for a week.—*Chicago Med. Review.*

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Dyspepsia in Infants.—Dr. Steiner recommends in his Compendium of the diseases of children the following formulæ, which he has often employed with good results in the treatment of dyspepsia in young children. Dyspepsia, the result of overloading the stomach with difficultly digestible and badly assimilated foods, is a condition which is frequent in those who are brought up by hand. The treatment of such cases requires careful attention to diet, and where there is an excessive acidity of the stomach, magnesia and bicarbonate of soda may be employed as follows:

Sodæ bicarb. 0.20—0.50 centigrams.
Aq. destill. 80 grams.
Syrup simpl. 10 grams.

Sig. A dessertspoonful every two hours.

In those cases in which there is excessive alkalinity on the other hand, acids in a very dilute form are specially indicated, and of these more especially hydrochloric acid:

Acid hydrochlor. dilut. gtt. x.
Aq. destill. 70 grams.
Syrup simpl. 10 grams.

Sig. A teaspoonful every two hours.

With very young children a dose of a centigram of pepsin may be administered before each meal.

The dyspepsia of older children, due to improper diet, can sometimes be quickly cured by an emetic and strict attention to diet. Colic of a dyspeptic character may often be cured by the employment of the following:—

Sodæ bicarb. 0.50—0.80 centigrams.
Aq. fœnicul. 80 grams.
Syrup diacod. gtt. xv.

Sig. A teaspoonful every two hours.

If there is constipation this mixture may be ordered:—

Hydromel 40 grams.
Aq. fœnic. 40 grams.
Aq. lauroceras, gtt. xv.

Sig. A teaspoonful to be taken every half hour until the medicine acts.—(*Le Progrès Méd.*, July 10, 1880.)

Danger of Prolonged Employment of Ergotin.—At a recent meeting of the Académie des Sciences (Bull. Gén. de Thérap., 1880, No. 8) M. Boissarie read an article on the inconveniences and dangers of ergotin. When given in continuous doses for a considerable period, even when these are small, ergotin accumulates in the economy, and may suddenly give rise to ergotism of a severe type. He gave also the history of a case of spontaneous gangrene of the lung from ergotism. —*Phila. Med. Times.*

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Rectal Alimentation.—In a case of severe and persistent vomiting at Bellevue Hospital (*Medical Record*, July 31st.) the patient was nourished very satisfactorily with enemata administered every three hours, composed as follows:

Milk, ℥ ij.; half an egg; whisky, ℥ ij., and McMunn's elixir of opium, gtt. x. The vomiting and pain were at once relieved. Two days previous to taking this note defibrinated blood was substituted for the above mixture, and ℥ iij., every three hours, were employed with satisfactory results.

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Hemorrhoids Treated with Capsicum.—In cases of hemorrhoidal congestion, Vidal regards Capsicum Annum as the best remedy. He prescribes four or five pills daily, each containing 20 centigrams, half at breakfast time and half at supper time. Under this influence the congestion and all the painful symptoms which accompany it disappear rapidly.—*Journal de Medicine.*

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Disguising the Taste of Epsom Salts.—According to the Gaz. des Hôp, June 12, 1880, the purgatif Yvon consists of sulphate of magnesia twenty grams, water forty grams, and essence of mint two or three drops. The essence of mint completely masks the disagreeable taste of the sulphate, providing that the quantity of the vehicle is inconsiderable —*Med. and Surg. Reporter.*

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Chinese Varnish.—This is prepared by mixing three parts of freshly-beaten defibrinated blood with four parts of slaked lime and a little alum. The thin-liquid mass may be used at once. Pasteboard coated with it is said to become as hard as wood. Straw baskets may be rendered by it water and oil tight.—*Polyt. Notizbl.*

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Remedy for Corns.—Mr. Gezow, an apothecary of Russia, recommends the following in the Pharmaceutische Zeitung as a "sure" remedy for corns, stating that it proves effective within a short time and without causing any pain: Salicylic acid, 30 parts; extract of cannabis indica, 5 parts; collodion, 240 parts. To be applied by means of a camel-hair pencil.—*Med. and Surg. Reporter.*

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Formula for Sore Nipples.—Dr. Howell recommends the following in the Canada Medical Record:—

℞ Tannin, ʒ j.
Sub-nit bismuth, ʒ ij.
Vaseline, ʒ j.

M. Sig. To be applied constantly when the child is not nursing.

## New Remedies.

EUCALYPTUS GLOBULUS IN MEDICINE.—Having presented the claims of Eucalyptus as a surgical dressing, in a paper read before the Kansas State Medical Society, I wish to-day to offer a few brief observations as to its uses in medicine.

Recent experiments have demonstrated its reliability in preventing putrifactive change, equal to carbolic acid at least, as also its power to destroy or hinder the multiplication of bacterial germs and septic poisoning.

For use in medicine both the oil and the fluid extract are available and reliable. The oil, according to Cloez, who has given its analyses is composed chiefly of Eucalyptus and Eucalyptolene, both hydro-carbons, which rapidly combine with oxygen. The fluid extract of the leaves contains beside the oil, tannin, and three resins, also a crystalized fatty acid and some minor substances.

The presence of Eucalyptus has been detected in the blood of those to whom it has been administered, and the blood of such persons, when exposed to the air, has resisted putrifactive change much longer than that not so impregnated. It is also readily detected in the urine, and it preceptibly increases the renal secretion. With these indications for its use before me, I have gixen Eucalyptus with much satisfaction as a gargle in ulcerated sore throat; also as a gargle, and combined with Jaborandi, internally, in a number of cases of scarlatina with results so good as to justify "great expectations."

In two very severe cases of typho-malarial fever, the first of which was a lad of 14 years, quite feeble from hereditary phthisis, the second a boy of four years, who had suffered so long from chronic malarial poisoning, that his nervous system was completely prostrated, and he would scream with terror at the approach of any person, even his mother; I resorted to the fluid extract of Eucalyptus, after having pursued the ordinary anti-periodic treatment with no apparent benefit, and I had really lost all hope of their recovery. The first twenty-four hours showed a marked improvement, which continued under its use without interruption to complete recovery, and during this time no other medicine was given.

I have also used the fluid extract as a gavinal injection in blenorrhœa, lucorrhœa, and kindred affections; also in gonorrhœa in both male and female, of the strength of one part of fluid extract to seven of water; the addition of a little glycerine is usually desirable.

I much prefer this wash in these affections to any dilution of carbolic acid, the indiscriminate use of which is accountable for much mischief. In erosions of the cervix uteri, without ulcerations, I used the fluid extract undiluted as a local application with benefit.

Administered internally it has proved very useful in cystitis and pyelitis both acute and chronic. Lest you may think I desire to recommend Eucalyptus for "all the ills that flesh is heir to," I will ask attention to the reports of a few authorities who have used it with success:

Professor John E. Braskett of Howard University, Washington, has reported sixteen cases of chronic malarial poisoning, that had resisted all other treatment, in the wards of the Providence Hospital, that recovered under the use of Eucalyptus.

Dr. Mulheron, of Detroit, in an article in "New Preparations," June, 1879, after detailing his favorable experience with Eucalyptus in a severe case of cystitis following child-bed says: "I have added Eucalyptus with benefit to gonorrhœal mixtures, especially when I had reason to suspect irritation, sympathetic or otherwise, of the vesical neck. I am satisfied that Eucalyptus Globulus is, in addition to its other valuable properties, a very important addition to our list of remedies in the treatment of urinary affections.

Dr. J. C. Skene in his work on the "Diseases of the Female Bladder and Urethra," refers to it as being recommended in obstinate cases.

Dr. Mallory, of Michigan, after detailing a case of inflammation of the lungs with complications, in which Eucalyptus was his last but successful resort, says: "The balsamic properties of Eucalyptus, and also its antiseptic properties, make it a valuable medicine in all inflammatory conditions of the mucous membranes of the human economy, whether acute or chronic. It has a marked influence also on the organs of excretion, eliminating through them the deleterious matters in the circulation; hence, it arouses the kidneys to greater action; it is also a stimulant to the liver."

As the object of this paper has been simply to ask your attention to an article which I believe will, when is more widely used and better understood, be considered as valuable and indispensable an agent as we have in our materia medica.

I have been as brief as possible, leaving it for each individual practitioner to decide on the special indications for its use, believing that once knowing its therapeutical action you can hardly go amiss in its use.—*T. S. Floyd, M. D., in Kansas Medical Index.*

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SANGUIS BOVINUS EXSICCATUS.—In reply to numerous queries received from the profession, regarding the results obtained from the use of defibrinated blood, I have to reply as follows: Although this agent is but a recent introduction to therapeutics, it is already extensively employed, especially in hospital practice. Sufficient time has not elapsed, however, to determine its true therapeutic position, as only the accumulated results of experience and observation are to be depended upon as scientific evidence. Until, therefore, the accumulated evidence from the evolution of time can be obtained it is impossible to furnish the profession with a truly scientific history.

The desiccated product suggested in my article, published in the Medical Record some months ago, was intended to utilize what then appeared a valuable product, and reports from hospital trial seem to fully justify the belief that it possesses important therapeutic value. Beneficial results usually follow its administation, though in some instances results have not realized expectations. But as many have reported success above anticipation, it is only fair to charge such failures to a fault in the expectation, rather than to the article in question. The immense sale would seem to be

an argument in favor of its value, except for the fact that valueless articles have had an immense sale; still this will probably result in proving what worth to set upon it the quicker. The history of every new drug has been that of great popularity at first, a disappointment of hopes, followed by condemnation and rejection; but finally inherent merit has in most cases been recognized, followed by a healthy reaction. Such a histoty can always be traced to expectations exceeding reality, either on the part of the introducer or advocates of the use of the drug; instance, salicylic acid, etc.

To fix the position of defibrinated blood as a therapeutic agent, and especially that of desiccated blood, as soon as possible, it has been placed very extensively in the hospitals of New York, Philadelphia and Boston, and in the hands of careful and competent observers, for thorough and scientific test. As soon as reports are received from these institutions they will be furnished to the profession, through the columns of the medical press, and it is hoped that in this manner information can be quickly gleaned which shall show to what extent defibrinated blood can be relied upon in the treatment of disease.

For the convenience of those now employing the blood in practic , the experience of the New York City Hospital will be of use. In this hospital the desiccated article, dissolved in water, and with the addition of brandy and glycerine, is now employed. For this mixture the following is the formula: Desiccated blood, six drachms, dissolved in water, four fluid ounces, to which add one ounce each of brandy and glycerine. Of this solution the dose has been determined by the case. A teaspoonful every fifteen minutes is sometimes given, but the dose of a tablespoonful every three hours is usually preferred. A greater quantity at first is not readily digested by the stomach. This mixture is readily retained, even by by the most delicate stomach, though other flavor has occasionally been added.

Per rectum, a mixture prepared from the same formula meets with favor, though but little difference is observed upon the omission of brandy and glycerine, and a substitution of water in its place. Here, as by stomach, the idea has been to put as much blood inside of the patient as possible, in the shortest time. But it is found that more than three ounces injected every three or four hours is not advisable.

In the New York Hospital defibrinated blood is used both as a sustaining and supporting measure, and also as a restorative agent. Its use is not confined to any one class of cases, but upon the same indications as meat. Patients to whom it is given have received much benefit from it, in some instances, while in others the results are not so marked.

Still more favorable reports are received from St. Francis Hospital, New York, and Ward's Island. At each place is to be found the history of a patient whose life has been apparently saved by defibrinated blood, after the failure of all other means, and a refusal of the operation of amputation.

In some instances a disagreeable odor has been imparted to the fæces during the administration of defibrinated blood, either when employed for rectal alimentation or when given by mouth. This is generally because a greater quantity than can be assimilated is given at one time, and it can usually be readily corrected by diminishing and properly regulating the dose. In these cases no ill effect has been observed—at least, to my knowledge—and a continuance of the medication has resulted beneficially.—F. E. Stewart, Ph. G., M. D., in *Med. and Surg. Reporter.*

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Quebracho Bark and Quebracho Wood.—Dr. Penzoldt, who first introduced the bark of Aspidosperma Quebracho as a remedy for certain forms of dyspnœa (Medical Times and Gazette, vol. ii. 1879, page 35), writes to the Berliner Klin. Wochenschrift (No. 10, 1880) that bark similar to that with which his experiments were made, and which he received from Dr. Schickendanz, of Pilciao, Argentine Republic, is not at present to be met with in commerce; on the other hand, the wood (lignum quebracho) can be obtained genuine, and it appears to differ from the bark mainly in possessing rather less therapeutic activity. As a fact, nearly all the observations hitherto published with reference to Quebracho have been made not with the bark, but with the wood. The dyspnœa of emphysema seems, from all accounts, to be the most relieved by this drug; in that of phthisis the effect is uncertain, as well as in œdematous conditions of the lungs associated with renal disease, but some cases of cardiac dyspnœa, and even of spasmodic asthma, have been benefited by it. Of course it is useless to prescribe Quebracho where the dyspnœa is distinctly of a mechanical nature. The dose suited to each individual case must be carefully determined by experiment, and it is absolutely necessary to remember that, according to trials made on animals, excessive doses cause dyspnœa instead of alleviating it. Dr. Penzoldt recommends the following slightly modified form of his original formula for an extract of Quebracho: Percolate ten grammes of finely powdered wood or bark for eight days with 100.0 grammes absolute alcohol, and filter. Evaporate the filtrate to dryness on a water-bath; dissolve the residue in twenty cubic centimetres of hot water, and filter. The aqueous solution, if prepared from the wood, will be reddish-brown, and perhaps slightly cloudy; if from the bark, of a clear yellowish color. One teaspoonful is equivalent to 2.0 grammes Quebracho. The dose for an adult should be one or two teaspoonfuls three times a day, but larger doses of the extract of the wood can be given than of that of the bark. English pharmacists, it should be mentioned, object to the above mode of preparing the extract as expensive and wasteful, owing to the loss of spirit involved; they prefer the tincture. A preparation which is quoted in many German drug-lists as "extractum Quebracho" is a very impure watery extract, resembling pitch in appearance, and containing a great deal of tannic acid. No reliance should be placed on it.

Since the last sentence was written, we have been informed that a small consignment of true Quebracho bark has lately arrived in London. By the kindness of a friend we have been enabled to compare a sample with a description of the true bark furnished to Dr. Penzoldt by Herr Dingler keeper of the Botanical Garden, Munich (loc. cit.

page 130,) and find a complete correspondence between them. As far, however, as we can learn, there is no present likelihood of enough Quebracho bark reaching the market to satisfy even a moderate demand for it.—*Med. Times and Gazette.*

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MENTHOL.—This is the crystals deposited from oil of peppermint when cooled to a low degree. It is also the name given to Chinese and Japanese oil of peppermint. There are three varieties of the oil: Western State, Hotchkiss and Mitcham, and the difference is that of quality. The Western is the poorest, as the plant is cut together with the weeds and hybrid plants and the oil expressed therefrom. Hotchkiss is the best grade we have in this country as an endeavor is made to separate the true plant from all foreign matters and then express the oil. These are the two grades which are used by druggists. Mitcham derives its name from a village in Surrey, England, where it is largely cultivated; it brings a very high price and is used by the confectioners for flavoring. Japanese is considered by many superior to Chinese. In Japan the Chinese is used whilst in China the Japanese is preferred. Both Chinese and Japanese oil of peppermint are much richer and stronger than the American and English. The plant seems to be a habitat of these countries and flourishes there more than elsewhere. A large amount of gum or crystals is deposited on cooling from the oriental sources.

Many years ago when the writer was sailing from Melbourne to Hong-Kong, Calcutta and Bombay, he observed that peppermint was used by the Chinese for the relief of headache and neuralgia, and that the cure was immediate. A topical application was made by painting the painful spot. The Japanese use an alcoholic solution of from one to ten per cent. scented with oil of cloves. This is termed Pō-ho yo and is sold at extravagant prices.

Some months since I procured a quantity of Japanese Peppermint—Menthol—and have used it continually as opportunity offered. My preparation is:

℞ Menthol, ʒ i.
Alcohol 98 per cent, ʒ iv.
Oil Cloves,
Oil Cinnamon, true, ℳ. gtt. xx.

M. Sig. Apply over painful spot with hair pencil.

This I have found very efficacious in toothache, nervous headache and neuralgia. It is useless in sick-headache as that depends upon gastric disturbance.

My impression is that Chinese peppermint is not derived from the same plant that grows in the United States, but is distilled from Mentha Arvensis, a species that grows in that country.

I have never tried Menthol in cases of sciatica and rheumatism but I can see no reason why it should not be equally efficacious in the treatment of these affections. It is a powerful antiseptic and anæsthetic; it forms the basis of many liniments called Pain Killers and Pain Paints. Oil of Capsicum antagonizes it and the two should not be used together.

There can be no doubt that Menthol is a valuable addition to our armamentum and may be classed as one of the reliable new remedies.—*J. H. Egan, M. D., in Eclectic Med. Jour.*

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RHUS AROMATICA IN ENURESIS.—We who live in the country are frequently called upon to treat cases of enuresis in children, and, heretofore, the treatment has been very unsatisfactory both to the medical man and patient. But I am of the impression that we have now a remedy for this troublesome affection, and that is Rhus Aromatica (Sweet Sumac.) I have only had three cases thus far to try it on.

During the month of December, 1878, a negro boy about 13 years of age came to see me and said as long as he would sit up he was not troubled about passing his urine, but as soon as he lay down he would "wet all over everything." I gave him Rhus Aromatica, twenty drops every three hours in a little water, last dose on going to bed. After taking it for one day he was able to lie down and sleep without the usual flow. After it gave out he was so much better, he thought he was well, but in a few days the same state of things returned. He came back and I gave him the same quantity of the Rhus with orders when it was out to come and get more, which he did. The third half ounce made a complete cure.

About that time I was consulted by a gentleman with regard to his son who had to get up from eight to ten times per night, and he was all bloated up and unable to do anything; could scarcely get about home for want of breath.

I gave him:

Rhus Aromatica, ʒ v.
Simple syrup, ℥ iij.
Water to make, ʒ v.

Dose, one teaspoonful every three hours, and last dose on going to bed.

He only had to take some three or four bottles of above when he was able to do about as much as any one of his age on the farm. He is now in good health.

The third case was that of a lady who complained of passing from one to two gallons of urine during twenty-four hours, and most of it at night; yet she appeared in good health and was always able to attend to her household affairs. I put her upon half drachm doses of Rhus Aromatica three times a day, which gave her permanent relief after two days use of the remedy.

On case second I changed from simple syrup to glycerine.

I give you these notes for what they may be worth to the profession. I hope others will test the virtues of this medicine and report results.—*Corres. Southern Med. Record.*

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CHAULMOOGRA OIL.—I have in a number of cases tested the value of chaulmoogra oil in sciatica, and not knowing of its previous employment in this affection, I submit the following report:

Case 1. Sciatica of four years' standing had resisted all of the usual remedies and yet continued unrelieved. The pain at night destroyed sleep. The free use of the oil with friction upon retiring

was followed on the first trial by so much relief that sleep followed. The same relief was experienced on subsequent nights during the short time the patient was under my observation. Unfortunately I soon lost sight of the patient and cannot now give the final result.

Case 2. Elated by the temporary success in the first case, I tried the same remedy in the case of the next patient who came suffering from sciatica. This was a lady thirty-five years of age, married, and the mother of two children. The hypodermic administration of morphia had been employed to such an extent that the patient now refused further medication of this kind. Vesicants and the galvanic battery had been of no avail. After a week's use of the oil she became able to walk without crutches and is now well.

In addition to the above I have since treated six cases of sciatica with the same remedy and with the same results. The oil which I use was obtained from Parke, Davis & Co. It is also well known to be of undoubted value in leprosy, but I much doubt its value as an agent for permanent cure, although the patient will undoubtedly improve under its internal and external use.—*J. H. Egan, M. D., in Chicago Medical Review.*

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Gurjun Balsam in Gonorrhœa and Vaginitis.—This balsam, which is extracted from various dicotyledonous trees, is turbid and of a brown color, bitter, smelling like copaiba but with a less unpleasant odor, whilst it is less acrid and less expensive than this drug. It is also more readily tolerated. After being in use for a long period in India, its properties were carefully examined by M. Vidal in Paris, as well as by M. Mauriac and M. Malley. The balsam is administered in capsules or in the form of an emulsion in mucilage. In the latter form Vidal gives 4 grams a day, immediately before meals; in larger doses of 10-12 grams it produces vomiting and diarrhœa. It can be prescribed at the beginning of a gonorrhœa, which it cures in 15 to 20 days: it is better however to employ it when the inflammatory stage is over, but it is also very useful in gleet. In the female it is used as local application, the vagina being first washed out with warm water, a plug of cotton-wool soaked in a liniment of equal parts of balsam and lime-water is applied by means of the speculum, and the plug is then covered with a second one of dry wool, the dressing being renewed daily. This proceeding is attended with a slight smarting which disappears after the third application.—*Bouchut's Compend. Ann. de Thérapeutique,* June, 1880.)

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Sclerotic Acid for Fibromiomata.–At the meeting of the Harkoff Medical Association, N. A. Sachava read a paper intended to show the possibility of causing a lessening of uterine fibromiomata, by hypodermic injections of sclerotic acid, if continued for a sufficient length of time. In support of his statement he not only quoted numerous testimonials from the medical press, but also described six cases of his own, of whom none at the time of treatment had been either in the post partum state or passing the climacteric period—two conditions in which those tumors sometimes spontaneously shrink. It is true, he said, some authors had obtained only negative results, but it must not be forgotten, that vascular fibroids decrease more readily than non-vascular ones, and single ones more readily than those that are multiplied or adhere to the neighboring organs. He prefers the Sclerotic Acid to all other preparations of Ergot, for it is chemically well known, represents the most actual principle of Ergot, keeps easily, is soluble in water and causes less pain where injected.—*Vratsh.*

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Coal Oil not Petroleum.—A correspondent in the last number of the Investigator gives his experience in the treatment of consumption with what he terms coal oil. Coal oil is obtained from coal. Kerosene oil, commonly known outside the oil regons as coal oil, is what is probably alluded to, but it is the product of refining the crude petroleum. We were not aware previous to this correspondent's statement that it was supposed to possess any therapeutic properties other than as a liniment.

The following are my conclusions after using the semi-solid oil in several hundred carefully-observed cases: The expectorated matter is lessened, the sputum becoming mere mucus in character. The results are apparent the first week or two; the cough is alleviated; the evening cough being the first to lessen, or disappear altogether, then the morning attack, and later those during the day; improvement of the appetite and subsidence of any vomiting that may have been present; disappearance of the night sweats; marked improvement in the physical signs of the disease; general improvement and return of strength; gradual but appreciable increase of body weight.

It has recently been strongly recommended by several French physicians, among whom is my friend, Dr. Bryan Blaque, of Paris. My per centage of cures is extraordinary. It never fails to afford a large amount of palliation in the most desperate cases.—*M. M. Griffith, M. D., in Independent Med. Investigator.*

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Picrotoxine.—Mr. Martindale informs me that the 1 in 240 aqueous solution of Picrotoxine is in winter an unreliable preparation, for when the temperature falls below 40° F. much of it crystallises out. He suggests (British Med. Journal, February 28th, 1880) the addition of a little glacial acetic acid to keep it in solution, and gives the following formula:—

Picrotoxine, 8 gr.
Glacial acetic acid, fl. ʒ iv.
Distilled water to fl. ʒ iv.

Mix and filter.

This is a 1 in 240 solution, so that four minims would equal 1-60 gr. I tried it in four cases of night-sweating, and it succeeded quite as well as the simple aqueous solution.

Pills containing 1-60 gr. of picrotoxine are made by rubbing it up with sugar of milk and adding glycerine or tragacanth. They answer admirably. —*Wm. Murrell, M. D., M. R. C. P., in Practitioner.*